

PERMIT EXAMPLE

ILLINOIS EPA

- Permit to construct a new sand processing line and new sand coating operation at an existing facility with the following emission unit operations:
 - 2 Rotary Fired Sand Dryers
 - Dry Sand Storage
 - Dry Sand Transfer
 - Sand Screening
 - Coated Sand Storage/Transfer
 - Sand Loadout
 - Sand Coater
 - Conveyors
 - Coolers
 - Bucket Elevators
 - Coating Heaters
- Emission units are subject to several NSPS and NESHAP

217/785-1705

CONSTRUCTION PERMIT
NSPS SOURCE - NESHAP SOURCE

PERMITTEE

Fairmount Santrol
Attn: Mr. Robert Larson
3448 East 2153rd Road
Wedron, Illinois 60557

Application No.: 14080009

I.D. No.: 099804AAB

Applicant's Designation: Wedron 7

Date Received: August 7, 2014

Subject: New Sand Processing Line and Coating Operation

Date Issued: October 2, 2014

Location: 3448 East 2153rd Road, Wedron

This permit is hereby granted to the above designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a new sand processing line and a new sand coating operation, as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s).

If you have any questions on this permit, please call Jason Schnepf at 217/785-1705.

Raymond E. Pilapil
Acting Manager, Permit Section
Division of Air Pollution Control

REP:JMS:jws

cc: Region 2
CES

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SECTION 1: GENERAL CONDITIONS THAT APPLY TO THE PROJECT

1.1 Introduction

- a. This permit authorizes an expansion of the industrial sand processing plant including:
 - i. The installation of a new sand processing line. The processing line will consist of two natural gas-fired rotary sand dryers, screens, belt conveyors, bucket elevators, storage units and rail loadout stations and associated control devices.
 - ii. For the purposes of this permit, the various new emission units at the sand processing plant are "affected units," except that the dryers are "affected dryers."
- b. This permit also authorizes construction of a new sand coating operation including:
 - i. Equipment to process and transfer sand to a new coating operation, such as conveyors, bucket elevators, silos and sand heaters.
 - ii. A coating operation, including sand pre-heater, two mixers to apply coating, an indirectly heated fluidized bed dryer to dry the coating, and a thermal oil heater to supply heat for the dryer.
 - iii. Equipment to handle coated sand from the operation, including transfer equipment, screens, coolers, silos, and rail loadout operations.
 - iv. For the purposes of this permit, the various new emission units are "affected units," except that the thermal oil heater and sand heaters are "affected heaters."
- c. This permit does not authorize additional utilization or modification of existing sand processing equipment at the source.

1.2 Generally Applicable Emission Standards

- a. Each affected unit, heater and dryer is subject to:
 - i. 35 IAC 212.123(a), which provides that the emission of smoke or other particulate matter from an emission unit shall not have an opacity greater than 30 percent, 6-minute average, except as provided by 35 IAC 212.123(b) or Part 201 Subpart I.
 - ii. 35 IAC 212.301 and 212.314, which provide that no person shall cause or allow the emission of fugitive particulate

matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour).

- b. Each affected unit, affected dryer, and space heater is subject to 35 IAC 212.321(a), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar new process emission units, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c).
- c. The affected dryer is subject to 35 IAC 214.301, which provides that no person shall cause or allow the emission of SO₂ into the atmosphere from any process emission unit to exceed 2000 ppm.

1.3 Non-applicability Provisions

This permit is issued based on this project not being a major modification of the existing minor source for purposes of the federal rules for Prevention of Significant Deterioration of Air Quality (PSD), 40 CFR 52.21. This is because the project emissions will be less 250 tons per year of regulated NSR pollutants other than greenhouse gases (GHG). However, as a result of this project, the source will be classified as a major source for purposes of PSD after completion of this project.

1.4 General Work Practice Requirements

- a. All affected conveyors shall be covered.
- b. At all times the Permittee shall maintain and operate the affected units, heaters and dryers, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
- c. As part of good air pollution control practice, the Permittee shall perform regular maintenance on the affected units, heaters and dryers, including associated control devices, in accordance with written procedures developed and maintained by the Permittee, which procedures may include the manufacturer(s) and/or vendor(s) recommendations.

1.5 Control Program for Fugitive Emissions

- a. The Permittee shall carry out control of emissions of fugitive particulate matter from the new sand processing facility and coating facility, in accordance with a written program describing the measures being implemented to demonstrate compliance with

Conditions 1.2(a), 1.4 and 2.2.5(c). This program shall be kept current.

- b. At a minimum, the program shall include the following control measures for emissions of fugitive particulate matter:
 - i. Material Transfer Points

The drop distance shall be maintained at a height to reduce emissions.
 - ii. Loadout
 - A. Loading shall be conducted using procedures that reduce spillage of material.
 - B. Spilled material shall be collected, flushed or otherwise managed to reduce the potential for emissions from this material.
 - iii. Dust Collectors

Material collected by dust collectors shall be handled by methods that prevent potential emissions from such material.
 - iv. General
 - A. Plant equipment and enclosures shall be inspected on a regular basis to verify they are in good condition for control of emissions. Any defects in equipment or enclosures that result in additional emissions shall be repaired as soon as practicable.
 - B. As related to control of particulate emissions, equipment shall be serviced according to the manufacturer's recommendation or other written procedures developed by the Permittee.
- c.
 - i. This program is subject to revision.
 - ii. A revised program shall be submitted to the Illinois EPA within 90 days of a request from the Illinois EPA for revision to address observed deficiencies in control of fugitive emissions.
- d. The Permittee shall keep records for the implementation of this program, including:
 - i. Records for inspections, with observations.
 - ii. Records for repairs.

- iii. Records for maintenance.

1.6 Emissions of Wet Sand Handling Operations

This permit is issued based on negligible emissions of particulate matter (PM) from wet sand handling equipment. For this purpose, wet sand handling equipment means equipment that handles sand with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be "saturated." For this purpose, emissions from all such equipment shall not exceed 0.1 lbs/hour and 0.4 tons/year, in total.

Note: Emission limits for other operations are included in Section 2 and summarized in Attachment 1.

1.7 Annual Limits

Compliance with the annual limits in this permit shall be determined from a running total of 12 months of data.

1.8 General Requirements for Performance Testing

For the performance tests required by Conditions 2.1.8, 2.2.6, 2.4.8-1 and 2.4.8-2, the Permittee shall fulfill the following requirements:

- a. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing, including as a minimum:
 - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.
 - iii. The specific determinations of emissions and operation, which are intended to be made, including sampling and monitoring locations.
 - iv. The test method(s), which will be used, with the specific analysis method, if the method can be used with different analysis methods.

- v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.
 - vi. The format and content of the Final Report for testing.
- b. The Illinois EPA shall be notified prior to the testing to enable the Illinois EPA to observe the testing. Notification of the expected date of testing shall be submitted to a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of testing. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.
- c. Copies of the Final Report(s) for testing shall be expeditiously submitted to the Illinois EPA, in all case within 60 days after the date of the test. The Final Report shall include as a minimum:
 - i. A summary of results.
 - ii. General information.
 - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
 - iv. Detailed description of test conditions, including:
 - A. Process information, i.e., mode(s) of operation and process rates; and
 - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
 - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

1.9 General Requirement for Records

All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to the Illinois EPA or USEPA request for records during the course of a source inspection.

1.10 General Requirement for Reporting

If there is a deviation from the requirements of this permit that is not otherwise address by compliance reporting pursuant to the federal New Source Performance Standards (NSPS) or National Emissions Standards for Hazardous Air Pollutants (NESHAP), the Permittee shall submit a report to the Illinois EPA within 30 days. The report shall include a description of the deviation, the probable cause of the deviation, the corrective actions that were taken, and measures taken to prevent similar occurrences in the future.

1.11 General Requirements for Reports and Notifications

Two copies of required reports and notifications shall be sent to the Illinois EPA, Division of Air Pollution Control, Compliance Section in Springfield; and

One copy of required reports and notifications shall be sent to the Illinois EPA, Air Regional office in Peoria; and

One copy of required submissions relating to performance testing shall be sent to the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Source Monitoring Unit
9511 Harrison Street
Des Plaines, Illinois 60016

1.12 Authorization to Operate

The Permittee is allowed to operate the affected units, dryers and heaters under this permit until final action is taken on the CAAPP application for the source, provided that the Permittee performs the required performance tests as required by Conditions 2.1.8, 2.2.6, 2.4.8-1 and 2.4.8-2. This condition supersedes Standard Condition 6.

SECTION 2: UNIT-SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

2.1 Sand Dryers

2.1.1 Description

Wet sand from the mining operation will be dried in rotary dryers (the "affected dryers"). The affected dryers will be fired with natural gas. Each affected dryer will be equipped with a dust collector (baghouse) for control of particulate emissions.

2.1.2 List of Emission Units and Air Pollution Control Equipment

| Emission Unit | Description | Emission Control Equipment |
|---------------|---|----------------------------|
| Rotary Dryer | Natural gas-fired rotary dryer; 300 tons/hour capacity. | Baghouse DC7-1000 |
| Rotary Dryer | Natural gas-fired rotary dryer; 300 tons/hour capacity. | Baghouse DC7-1100 |

2.1.3 Applicable Federal Emission Standards

The affected dryers are subject to the federal New Source Performance Standards (NSPS) for Calciners and Dryers in Mineral Industries, 40 CFR 60 Subpart UUU and applicable requirements of the General Provisions of the NSPS, 40 CFR 60 Subpart A.

- a. Pursuant to the NSPS, 40 CFR 60.732, emissions from each affected dryer shall not contain particulate matter in excess of 0.057 grams/dscm (0.025 grains/dscf).
- b. Pursuant to the NSPS, 40 CFR 60.732, emissions from each affected dryer shall not exhibit greater than 10 percent opacity.

2.1.4 Non-applicability Provisions

This permit is issued based on continuous opacity monitoring not being required for the affected dryers pursuant to the NSPS, 40 CFR 60.734(a), as these dryers are "industrial sand rotary dryers" that are exempt from such monitoring by 40 CFR 60.734(c).

2.1.5 Good Air Pollution Control Practices

At all times, the Permittee shall maintain and operate the affected dryers and associated baghouses in a manner consistent with good air pollution control practice for minimizing emissions pursuant to 40 CFR 60.11(d).

2.1.6 Control Requirements

- a. At a minimum, the good air pollution control practices for the baghouses shall include maintenance and operation in accordance with written operating procedures that specify:
 - i. The acceptable ranges of key baghouse operating parameters.
 - ii. The procedures for periodic inspection of the baghouse.
 - iii. The procedures for regular preventative maintenance of the baghouse.

2.1.7 Operational and Emission Limits

- a.
 - i. Natural gas shall be the only fuel fired in the affected dryers.
 - ii. The rated heat input capacity of each affected dryer shall not exceed 104.0 mmBtu/hour.
 - iii. A. The production rate for each affected dryer shall not exceed 300 tons of dried sand produced per hour, monthly average.
B. The total amount of dried sand produced by the affected dryers, in total, shall not exceed 5,256,000 tons/year.
- b.
 - i. Emissions from the affected dryers shall not exceed the following limits.

| Pollutant | Limits | |
|------------------------------------|--------------------|-------------------------|
| | Lbs/Hour (each) | Tons/Year (combined) |
| Nitrogen Oxides (NO _x) | 10.14 | 88.8 |
| Carbon Monoxide (CO) | 8.52 | 74.6 |
| Volatile Organic Material (VOM) | 0.56 | 4.9 |
| PM (filterable and condensable) | 1.56 | 13.6 |

- ii. This permit is issued based on minimal emissions of sulfur dioxide (SO₂) from the affected dryers. For this purpose, emissions shall not exceed 0.25 pounds/hour, each and 1.1 tons/year, in total.

2.1.8 Emission Testing Requirements

- a. Within 60 days after achieving the maximum production rate at which each affected dryer will be operated, but not later than 180 days after initial startup, the Permittee shall conduct performance tests for:

- i. Particulate matter for the affected dryers in accordance with the requirements of 40 CFR 60.8 and 60.736. (NSPS Testing)
 - ii. Condensable particulate matter from each affected dryer and for PM₁₀ (filterable), NO_x and CO from one of the affected dryers.
- b. These tests shall be conducted during conditions which are representative of maximum emissions.
- b. The following methods and procedures shall be used for testing of emissions, unless use of another method developed or supported by USEPA is approved by the Illinois EPA as part of the approval of the test plan. Refer to 40 CFR 60, Appendix A for USEPA test methods.

| | |
|-------------------------------|-------------------|
| Location of Sample Points | USEPA Method 1 |
| Gas Flow and Velocity | USEPA Method 2 |
| Flue Gas Weight | USEPA Method 3 |
| Moisture | USEPA Method 4 |
| Particulate Matter | USEPA Method 5 |
| Nitrogen Oxides | USEPA Method 7 |
| Opacity | USEPA Method 9 |
| Carbon Monoxide | USEPA Method 10 |
| PM ₁₀ (filterable) | USEPA Method 201A |
| Condensable Particulate | USEPA Method 202 |

- c. For this testing, the Permittee shall submit reports and notifications in accordance with Condition 1.8. In addition, for the testing required by the NSPS, the Permittee shall fulfill applicable notification and reporting requirements of the General Provisions of the NSPS, 40 CFR 60 Subpart A.

2.1.9 Operational Monitoring Requirements

- a. For each baghouse, the Permittee shall install, operate and maintain instrumentation to measure and record pressure drop across each baghouse. If data is not automatically recorded, the Permittee shall record the pressure drop measured by this device at least once during each operating day.
- b. As an alternative to monitoring in accordance with Condition 2.1.9(a), the Permittee may install, operate and maintain a bag leak detector system on the baghouse.

2.1.10 Recordkeeping Requirements

- a. The Permittee shall maintain the following operating records for the affected dryers:

- i. Amount of dried sand produced, in total (tons/month and tons/year).
 - ii. Fuel consumption (mmscf/month and mmscf/year).
- b. The Permittee shall maintain the following logs or other similar records for the affected dryers and associated control devices:
 - i. An operating log that at a minimum shall contain the following information the identification of each incident during which emission unit(s) operated without the associated control device or when the associated control devices was not operating properly, with detailed description, including duration, a discussion of the likely cause(s) of the event, the corrective actions that were taken, and any preventive measures that were be taken to reduce future incidents, and an estimate of excess emissions during the incident, if any.
 - ii. A maintenance and repair log that at a minimum describes all routine and non-routine maintenance and repair performed including dates and description.
- c. The Permittee shall keep the following records related to the emissions of PM and PM₁₀/PM_{2.5} from the affected dryers:
 - i. A file containing the design specifications for the baghouses (type of unit, maximum design exhaust flow (acfm and dscfm), filter area, type of filter cleaning), the performance guarantee for particulate exhaust loading in gr/dscf) and the manufacturer's recommended operating and maintenance procedures for this baghouse.
 - ii. A file containing calculations for the maximum PM and PM₁₀ emission rates of the baghouses (lbs/hour and lbs/tons), with supporting documentation and calculation.
 - iii. The emissions of PM and PM₁₀/PM_{2.5} (tons/month and tons/year), with supporting calculations.
- d. The Permittee shall keep the following records related to emissions of NO_x, CO and VOM from the affected dryers:
 - i. A file containing documentation for the rated heat input capacity of each dryer and calculations for the maximum emission rates of each pollutant, in pounds/hour and pounds/mmBtu, with supporting documentation.
 - ii. NO_x, CO and VOM emissions (tons/month and tons/year) with supporting calculations.

2.2 Dry Sand Handling Units

2.2.1 Description

For the new sand processing line, various dry sand handling equipment will be installed to process and transfer sand from the sand dryers that will either be coated in the new coating operation or loaded out as finished, uncoated sand. For the new sand coating operation, various dry sand handling equipment will be installed to process and transfer sand to a new coating operation and then to storage and loadout. For the purposes of this permit, the various dry handling equipment is referred to as "affected units." All affected units are controlled by baghouses.

Note: this section does not address similar emission units located at the new sand coating facility that are controlled by a scrubber. Those units are addressed in Section 2.4 of this permit.

2.2.2 List of Emission Units and Air Pollution Control Equipment

The list of emissions units and associated control equipment is provided in Attachment 2 of this permit.

2.2.3 Non-applicability Provisions

This permit is issued based on the affected units not being subject to the NSPS for Nonmetallic Mineral Processing Plant, 40 CFR 60 Subpart 000. This is because the affected facility and the source at which it is located do not crush or grind sand so that they do not constitute a nonmetallic mineral processing plant, as defined by 40 CFR 60.671.

2.2.4 Control Requirements

- a. Affected units shall only be operated when their associated baghouse are operating.
- b. At all times, the Permittee shall, to the extent practicable, maintain and operate each baghouse in accordance with good air pollution control practice for minimizing emissions. At a minimum, these practices shall include maintenance and operation in accordance with written operating procedures that specify:
 - i. The acceptable ranges of key baghouse operating parameters.
 - ii. The procedures for periodic inspection of each baghouse.
 - iii. The procedures for regular preventative maintenance of each baghouse.

2.2.5 Operational and Emission Limits

- a. The amount of sand processed by the new sand processing line shall not exceed 525,600 tons per month and 5,256,000 tons per year.
- b. Each baghouse shall be designed to emit no more than 0.005 gr/scf for filterable particulate matter.
- c. Emissions from affected units shall not exceed the following limits.

| Operation* | Control Device | PM/PM ₁₀ Emissions | |
|------------------------------|----------------|-------------------------------|-----------|
| | | Pounds/Hour | Tons/Year |
| Dry Sand Transfer | DC7-2000 | 0.13 | 0.6 |
| Dry Sand Storage | DC7-2100 | 0.75 | 3.3 |
| Sand Screening (North Tower) | DC7-3000 | 1.50 | 6.6 |
| Sand Screening (South Tower) | DC7-4000 | 1.50 | 6.6 |
| Sand Transfer to Coating | DC7-5000 | 1.29 | 5.6 |
| Coated Sand Transfer/Storage | DC7-5100 | 1.29 | 5.6 |
| Sand Loadout Process | DC7-6000 | 1.16 | 5.1 |
| | | Total: | 33.4 |

* Emission units are identified by the associated control device. The detailed list of emissions affected units and their associated control equipment is provided in Attachment 2 of this permit.

2.2.6 Performance Testing

- a. Within one year of initial startup of the affected units, the Permittee shall have performance tests conducted for emissions of filterable PM and PM₁₀* from the baghouse controlling either the North Tower or the South Tower. These tests shall be conducted by a qualified testing service during conditions that are representative of the maximum emissions.

* If the Permittee considers all PM emissions to be emissions of filterable PM₁₀, testing for emissions of filterable PM₁₀ need not be performed unless specifically requested by the Illinois EPA.

- b. The following USEPA methods and procedures shall be used for testing of emissions unless use of another USEPA method is approved by the Illinois EPA as part of its review of the test plan. Refer to 40 CFR 60, Appendix A, for USEPA test methods.

| | |
|-------------------------------|-------------------|
| PM | USEPA Method 5 |
| PM ₁₀ (filterable) | USEPA Method 201A |

- c. For this testing, the Permittee shall submit reports and notifications in accordance with Condition 1.8.

2.2.7 Operational Monitoring Requirements

For each baghouse, the Permittee shall install, operate and maintain instrumentation to measure pressure drop across the baghouse. If data is not automatically recorded, the Permittee shall record the pressure drop measured by this device at least once during each operating day.

2.2.8 Recordkeeping Requirements

- a. The Permittee shall keep the records for the amount of sand processed by the affected facility (tons/month and tons/year).
- b. The Permittee shall keep the following records related to the emissions of PM and PM₁₀ of the affected units controlled by the baghouses:
 - i. A file containing the design specifications for the baghouses (type of unit, maximum design exhaust flow (acfm and dscfm), filter area, type of filter cleaning), the performance guarantee for particulate exhaust loading in gr/dscf) and the manufacturer's recommended operating and maintenance procedures for this baghouse.
 - ii. A file containing calculations for the maximum PM and PM₁₀ emission rates of the baghouses (lbs/hour), with supporting documentation and calculation.
 - iii. The emissions of PM and PM₁₀ (tons/month and tons/year), with supporting calculations.
- c. The Permittee shall maintain the following logs or other similar records for the affected units and associated control devices:
 - i. An operating log that at a minimum shall contain the following information the identification of each incident during which emission unit(s) operated without the associated control device or when the associated control devices was not operating properly, with detailed description, including duration, a discussion of the likely cause(s) of the event, the corrective actions that were taken, and any preventive measures that were be taken to reduce future incidents, and an estimate of excess emissions during the incident, if any.
 - ii. A maintenance and repair log that at a minimum describes all routine and non-routine maintenance and repair performed including dates and description.

2.3 Pre-heater and Space Heaters

2.3.1 Description

For the new sand processing line, dry sand that goes to the coating operation will be heated indirectly in a vertical sand heater using a natural gas-fired thermal oil heater (the "affected pre-heater") before going into the coating process.

The natural gas-fired space heaters (the "affected space heaters") will be direct-fired heaters used to provide comfort heating for buildings.

2.3.2 List of Emission Units and Air Pollution Control Equipment

| Emission Unit | Description |
|---------------|--|
| Pre-heater | Natural gas-fired thermal oil heater; 9.8 mmBtu/hour capacity. |
| Space Heaters | Natural gas-fired heaters will be used to provide comfort heating for buildings; eight heaters each with a maximum capacity of 2.5 mmBtu/hour. |

2.3.3 Applicable Emission Standards

The affected pre-heater is subject to the NESHAP for Major Source for Industrial, Commercial and Institutional Boilers, 40 CFR 63 Subpart DDDDD and applicable requirements of the General Provisions of the NESHAP, 40 CFR 63 Subpart A.

- a. At all times, the Permittee shall operate and maintain the affected pre-heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the USEPA or the Illinois EPA that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.7500(a)(3)]
- b. The Permittee shall conduct a tune-up of the affected pre-heater every two years as specified in 40 CFR 63.7540. [40 CFR 63.7500 and Table 3]

Note: The Permittee also had to conduct a one-time energy assessment performed for the source by a qualified energy assessor. [40 CFR 63.7500 and Table 3]

2.3.4 Non-applicability Provisions

- a. This permit is issued based on the affected space heaters not being subject to the NESHAP for Major Source for Industrial,

Commercial and Institutional Boilers, 40 CFR 63 Subpart DDDDD. This is because space heaters are not considered process heaters as defined by 40 CFR 63.7575.

- b. This permit is issued based on the affected pre-heater and space heaters not being subject to the NSPS for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Dc. This is because the maximum design heat input capacity of each unit is less than 10 mmBtu/hour.
- c. This permit is issued based on the affected pre-heater and space heaters not being subject to 35 IAC 216.121. This is because the actual heat input of each unit is less than or equal to 10 mmBtu/hour.

2.3.5 Operational and Emission Limits

- a.
 - i. The rated heat input capacity of the affected pre-heater shall not exceed 9.8 mmBtu/hour.
 - ii. The rated heat input capacity of the affected space heaters shall not exceed 2.5 mmBtu/hour each and the total rated heat input capacity for all affected space heaters shall not exceed 20.0 mmBtu/hour.
 - iii. Natural gas shall be the only fuel fired in the affected pre-heater and space heaters.
- b.
 - i. Emission from the affected pre-heater and space heaters shall not exceed the following limits:

| Pollutant | Limits | | |
|-----------------|-------------|--------------------|------------------------------|
| | Pre-Heater | Space Heaters | Pre-Heater and Space Heaters |
| | Pounds/Hour | Pounds/Hour (each) | Tons/Year (total) |
| NO _x | 0.96 | 0.25 | 12.8 |
| CO | 0.81 | 0.21 | 10.7 |

- ii.
 - A. This permit is issued based on negligible emissions of PM/PM₁₀/PM_{2.5}, VOM and SO₂ from the affected pre-heater. For this purpose, emissions of each pollutant shall not exceed nominal emission rates of 0.1 lb/hour and 0.4 tons/year.
 - B. This permit is issued based on minimal emissions of PM/PM₁₀/PM_{2.5} and VOM emissions from the affected space heaters, in total. For this purpose, emissions of each pollutant from all affected space heaters, in total, shall not exceed 0.25 lb/hour and 1.1 tons/year.

- C. This permit is issued based on negligible emissions of SO₂ emissions from the affected space heaters, in total. For this purpose, emissions of SO₂ shall not exceed a nominal emission rate of 0.1 lb/hour and 0.4 tons/year.

2.3.6 Recordkeeping Requirements

- a. The Permittee shall comply with the applicable recordkeeping requirements in 40 CFR 63.7555 for the affected pre-heater.
- b. The Permittee shall maintain records of the following items for the affected pre-heater and space heaters:
 - i. A file containing documentation for the rated heat input capacity of each heater (mmBtu/hour) and calculations for the maximum emission rates of each pollutant, in pounds/hour and pounds/mmBtu, with supporting documentation.
 - ii. The quantity of fuel burned for the affected pre-heater and space heaters, in total (mmscf/month and mmscf/year).
 - iii. NO_x and CO emissions from the affected pre-heater and space heaters, in total (tons/month and tons/year) with supporting documentation and calculations.

2.3.7 Reporting Requirement

For the affected pre-heater, the Permittee shall comply with the applicable notification and reporting requirements in 40 CFR 63.7545 and 63.7550, respectively.

2.4 Sand Coating Operation

2.4.1 Description

A mixture of polymer, petroleum distillate and water will be introduced to the heated sand in mixers. The petroleum distillate and water will act as a carrier to distribute the coating (the polymer) evenly over the sand. After mixing, the coated material is transferred to the fluidized bed dryer.

A fluidized bed dryer will dry the coated sand, with heat supplied from a separate thermal oil heater (the "affected heater"). The coating and drying process would be designed to operate as a closed loop system. A condenser would remove the water and petroleum distillate from the gas stream, which would then be recycled to the front of the dryer with only a small stream of purge gas normally venting from the dryer. This purge stream would be controlled by a wet scrubber. The condensed material would be processed to remove water and the petroleum distillate would then either be sent off-site as a byproduct from the coating process or, if it would meet applicable legal requirements, used as a fuel in the separate heater for the dryer (See Condition 2.4.6(b)(ii)). The design of the dryer, with only a small purge stream going to the scrubber, will act to control emissions of PM and VOM from the coating operation.

Coated sand would be transferred from the dryer to coolers via conveyors and an elevator. A bucket elevator would transfer the cooled, coated sand to product storage silos.

The mixers and dryer and associated downstream conveyors, coolers and bucket elevator would be controlled by a wet scrubber for control of particulate matter and volatile organic material. If the emission levels are low enough to comply without the scrubber, the scrubber would be considered a voluntary control device.

2.4.2 List of Emission Units and Air Pollution Control Equipment

| Emission Unit | Description | Emission Control Equipment |
|----------------------------|---|----------------------------|
| Affected Coating Operation | Two mixers are used to apply the coating to sand. The coating would be dried in an indirectly heated fluidized bed dryer. | Wet Scrubber WS7-5000 |
| Affected Conveyors | Conveyors transfer the coated sand to coolers. | |
| Affected Coolers | Coolers apply cool air to the coated sand to prevent the coated sand particles from sticking together. | |
| Affected Bucket Elevator | A bucket elevator transfers the cooled, finished sand to storage. | |
| Affected Heater | Natural gas-fired thermal oil heater; 24.0 mmBtu/hr capacity. | None |

2.4.3 Applicable Federal Emission Standards

- a. i. The affected heater is subject to the NSPS for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Dc and applicable requirements of the General Provisions of the NSPS, 40 CFR 60 Subpart A.
- ii. Pursuant to the NSPS, 40 CFR 60.11(d), the Permittee shall at all times, maintain and operate the affected heater in a manner consistent with good air pollution control practice for minimizing emissions.
- iii. The affected heater is subject to 40 CFR 60.42c(d), which provides that no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. Pursuant to 40 CFR 60.42c(h), this limit may be determined based on a certification from the fuel supplier, as described under 40 CFR 60.48c(f).
- b. The affected heater is subject to the NESHAP for Major Source for Industrial, Commercial and Institutional Boilers, 40 CFR 63 Subpart DDDDD and applicable requirements of the General Provisions of the NESHAP, 40 CFR 63 Subpart A.

Note: The affected heater is considered to be a unit in the "unit designed to burn liquid subcategory" beginning on the date that liquid fuel is first burned in the affected heater.

- i. As a unit designed to burn liquid, at all times, except for periods that meet the definitions of startup and shutdown in 40 CFR 63.7575, the emissions from this heater shall not exceed the following limits pursuant to the NESHAP, 40 CFR 63.7500(a)(1), on and after the date the applicable performance test required to be conducted under 40 CFR 63.7 is or should be completed. Compliance with these limits shall be demonstrated in accordance with the applicable provisions of this NESHAP, including 40 CFR 63.7500, 63.7505, 63.7510 and 63.7540.

A. Particulate HAP

- 1. Combustion of distillate oil, either:
 - PM (filterable): 0.0011 lb/mmBtu; or
 - alternatively
 - Total Selected Metals: 0.000029 lb/mmBtu
- 2. Combustion of recovered petroleum distillate, either:

PM (filterable): 0.013 lb/mmBtu; or
alternatively
Total Selected Metals: 0.000075 lb/mmBtu.

- B. CO: 130 ppmv, dry, corrected to 3% oxygen, 3-run average
 - C. Hydrogen chloride (HCl): 0.00044 lb/mmBtu
 - D. Mercury: 0.00000048 lb/mmBtu
- ii. Pursuant to 40 CFR 63.7500(a)(1) and Table 3 of 40 CFR 63 Subpart DDDDD, the Permittee shall comply with applicable work practice standard of this NESHAP, including:
 - A. Unless the Permittee operates a continuous oxygen trim system on the affected heater, completing periodic tune-ups of the heater at least annually or every 5 years, as applicable, in accordance with 40 CFR 63.7540(a)(10), (12) and (13).
 - B. Operating all continuous monitoring systems required by this NESHAP at all times the affected heater is in operation, including during startup of the heater.
 - C. Use natural gas or other clean fuel for startup of the affected heater.
 - iii. Pursuant to 40 CFR 63.7500(a)(3), at all times the Permittee must operate and maintain the affected heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions

2.4.4 Applicable State Emission Standards

- a. For the affected heater:
 - i. When liquid fuel exclusively is burned in the affected dryer, the affected dryer is subject to 35 IAC 212.206, which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period to exceed 0.10 lbs/mmBtu of actual heat input.
 - ii. When liquid fuel exclusively is burned in the affected dryer, the affected dryer is subject to 35 IAC 214.122(b)(2), which provides that no person shall cause or allow the emission of SO₂ into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 250 mmBtu/hr, burning

liquid fuel exclusively to exceed 0.3 lbs of SO₂ per mmBtu of actual heat input when distillate fuel oil is burned.

- iii. The affected heater is subject to 35 IAC 216.121, which provides that no person shall cause or allow the emission of CO into the atmosphere from any fuel combustion emission source with actual heat input greater than 10 mmBtu/hr to exceed 200 ppm, corrected to 50 percent excess air.
- b. The coating operation with dryer is subject to 35 IAC 215.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission source, except that if no odor nuisance exists this limitation shall apply only to photochemical reactive material as defined in 35 IAC 211.4690.

2.4.5 Non-applicability Provisions

- a. This permit is issued based on the affected heater not being an incinerator because petroleum distillate recovered from the dryer would only be used as a fuel in this heater if this material does not qualify as a waste under federal and state laws and rules.
- b. The affected heater is not subject to standards of the NSPS, 40 CFR 60 Subpart Dc for PM and opacity because the rated heat input capacity of the affected heater is less than 30 mmBtu/hour. [40 CFR 60.43c(c)]
- c. This permit is issued based on the affected heater not being subject to the NESHAP, 40 CFR 63 Subpart DDDDD, limit for particulate HAP for a unit firing light liquid when petroleum distillate recovered from the dryer is burned. This is because this recovered material does not meet the definition of "distillate oil," so does not qualify as "light liquid," and the heater would be a "unit designed to burn heavy liquid," with all these terms as defined by 40 CFR 63.7575.

2.4.6 Operational Limits

- a.
 - i. The amount of coated sand produced by the new sand coating operation shall not exceed 87,600 tons per month and 876,000 tons per year.
 - ii. The heat input capacity of the affected heater shall not exceed 24 mmBtu/hour.
- b.
 - i. Natural gas and distillate fuel oil may be used as fuels in the affected heater.
 - ii. A. Petroleum distillate material recovered from the affected dryer shall only be used in the affected heater if it is determined that this material when

fired in the affected heater would not be a waste under both applicable federal laws and rules and applicable Illinois laws and rules.

- B. Prior to initially using petroleum distillate material recovered from the affected dryer as fuel in the affected heater, the Permittee shall submit the following to the Illinois EPA, Bureau of Air. Thereafter, the use of this material in the affected heater shall be consistent with any qualifications and conditions expressed in the determinations or certification submitted to the Illinois EPA.
 - 1. With respect to federal laws and rules, either a copy of a determination by USEPA that this material would not be considered a waste under applicable federal laws and rules when fired in the affected heater or a copy of a certification by the Permittee, with supporting documentation, that relevant provisions of federal rules (e.g., 40 CFR 241.3(b) and (d)) will be met so that the material would not be considered a waste; and
 - 2. With respect to Illinois laws and rules, a copy of a determination made by either the Illinois EPA, Bureau of Land, or Illinois' Pollution Control Board that this material would not be considered a waste under applicable state laws and rules when fired in the affected heater or a copy of a certification by the Permittee, with supporting documentation that the relevant provisions of state rules will be met so the material would not be considered a waste.
- C. Pursuant to 40 CFR 63.7500 and Tables 4 and 7 of 40 CFR 63 Subpart DDDDD, beginning on the date that the affected heater first operates as a unit designed to burn liquid, the Permittee shall, as applicable, operate the affected heater to comply with the applicable operating limits established pursuant to this NESHAP, including the following:
 - i. If the Permittee elects to demonstrate compliance with the applicable limit of this NESHAP for mercury, total selected metals and/or hydrogen chloride by fuel analysis, the Permittee shall maintain the fuel type or fuel mixture such that the applicable emission rate(s) calculated according to 40 CFR 63.7530(c)(1), (2) and/or (3), respectively, as applicable, are less than the applicable emission limit(s).
 - ii. If the Permittee elects to demonstrate compliance with an applicable limit of this NESHAP by performance testing, the

operating load of the affected heater, as monitored in accordance with Table 8 of this NESHAP, shall not exceed 110 percent of the highest hourly average operating load recorded during the most recent performance test.

- iii. If the Permittee elects to demonstrate compliance with the CO emission limit with an O₂ analyzer system, as provided for by 40 CFR 63.7525(a), the 30-day rolling average oxygen content shall be maintained at or above the lowest hourly average oxygen concentration measured during the most recent CO performance test, as monitored in accordance with Table 8 of this NESHAP, provided, however, that this requirement will not apply if an oxygen trim system is installed and operated in accordance with 40 CFR 63.7525(a).

2.4.7 Emission Limits

- a. Emissions of PM/PM₁₀/PM_{2.5} from the affected coating operation, conveyors, coolers and bucket elevator shall not exceed 2.2 lbs/hour and 9.0 tons/year, in total.
- b. i. Emissions from the affected heater shall not exceed the following limits.

| Pollutant | Limit | |
|--|-------------|-----------|
| | Pounds/Hour | Tons/Year |
| NO _x | 4.14 | 18.2 |
| CO | 2.00 | 8.7 |
| PM/PM ₁₀ /PM _{2.5} | 0.40 | 1.8 |

- ii. This permit is issued based on minimal emissions of VOM from the affected heater. For this purpose, emissions shall not exceed 0.25 lbs/hour and 1.1 tons/year.
- iii. This permit is issued based on negligible emissions of SO₂ from the affected heater. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lbs/hour and 0.4 tons/year.
- c. This permit is issued based on minimal emissions of VOM from the affected mixers and fluidized bed dryer, combined. For this purpose, emissions of VOM shall not exceed 0.25 pounds/hour and 1.1 tons/year.

2.4.8-1 Performance Testing for the Affected Heater

- a. Pursuant to the NSPS, 40 CFR 60 Subpart Dc, the Permittee shall conduct an initial performance test related to the SO₂ emissions of the affected heater pursuant to 40 CFR 60.44c(g) (fuel

sampling and analysis) or 40 CFR 60.44c(h) (fuel supplier certification), as applicable.

- b. Pursuant to the NESHAP, 40 CFR 63 Subpart DDDDD, the Permittee shall conduct performance tests for the CO emissions of the affected heater, including initial tests pursuant to 40 CFR 63.7510(c) and periodic tests pursuant to 40 CFR 63.7515, with such tests conducted in accordance with applicable requirements of 40 CFR 63.7520, including development of a site-specific stack test plan according to 40 CFR 63.7520(a).

Note: This condition does not address stack testing under the NESHAP for emissions of mercury, hydrogen chloride or particulate HAP. This because it is expected that the Permittee will elect to comply with the NESHAP limits for these pollutants by fuel analysis, as addressed in Condition 2.4.9.

- c. If the affected heater burns recovered petroleum distillate from the dryer, the Permittee shall also have performance tests conducted, as follows, by a qualified testing service for the affected heater during conditions that are representative of the maximum emissions.

- i. Within one year of first burning recovered petroleum distillate in the heater, the Permittee shall have performance tests conducted for emissions of filterable PM*, condensable PM, filterable PM₁₀**, NO_x and CO while burning such material.

- * If testing for emissions of filterable PM is conducted pursuant to the NESHAP, separate testing for PM emissions is not required pursuant to this condition.

- ** If the Permittee considers the results of testing for filterable PM emissions to also represent emissions of filterable PM₁₀, testing for emissions of filterable PM₁₀ need not be conducted unless specifically requested by the Illinois EPA.

- ii. Additional emission testing shall be conducted for the heater within 90 days of a written request by the Illinois EPA for fuel(s) and pollutants as specified by the request.

- d.
 - i. Within one year of initial startup of the affected heater, the Permittee shall have performance tests conducted for emissions of NO_x and CO from the affected heater. These tests shall be conducted by a qualified testing service during conditions that are representative of the maximum emissions.

- ii. The following USEPA methods and procedures shall be used for testing of emissions unless use of another USEPA method is approved by the Illinois EPA as part of its review of the test plan. Refer to 40 CFR 60, Appendix A, for USEPA test methods.

| | |
|-----------------|-----------------|
| NO _x | USEPA Method 7 |
| CO | USEPA Method 10 |

- e. For this testing, the Permittee shall submit reports and notifications in accordance with Condition 1.8. In addition, for the testing required by the NSPS and the NESHAP, the Permittee shall fulfill applicable notification and reporting requirements of the General Provisions of the NSPS and NESHAP, 40 CFR 60 Subpart A and 40 CFR 63 Subpart A, respectively.

2.4.8-2 Performance Testing for the Scrubber

- a. Within one year of initial startup of the affected coating operation, the Permittee shall have performance tests conducted for emissions of VOM and PM (filterable and condensable) from the affected coating operation to address compliance with Conditions 2.4.7(a) and (c). For this purpose, the Permittee shall conduct measurements for the controlled emissions of the coating operation, i.e., exhaust from the scrubber, unless measurements for uncontrolled emissions, prior to the scrubber show compliance. These tests shall be conducted by a qualified testing service during conditions that are representative of the maximum emissions.
- b. The following USEPA methods and procedures shall be used for testing of emissions unless use of another USEPA method is approved by the Illinois EPA as part of its review of the test plan. Refer to 40 CFR 60, Appendix A, for USEPA test methods.

| | |
|------------------|---------------------|
| PM (filterable) | USEPA Method 5 |
| PM (condensable) | USEPA Method 202 |
| VOM | USEPA Method 25/25A |

- c. For this testing, the Permittee shall submit reports and notifications in accordance with Condition 1.8.

2.4.9 Fuel Analysis Requirements

- a. If for the liquid fuel burned in the affected heater, the Permittee elects to comply with the applicable limits of 40 CFR 63 Subpart DDDDD for mercury, hydrogen chloride or total selected metals through fuel analysis, as provided for by 40 CFR 63.7505(c), the Permittee shall comply with the applicable requirements of this NESHAP for initial and periodic fuel analysis, including 40 CFR 63.7510(b), 63.7515(e) and 63.7521 and Tables 6 and 8 to this NESHAP, with sampling conducted in

accordance with a site-specific fuel monitoring plan developed according to 40 CFR 63.7521(b).

- b. For distillate oil fuel burned in the affected heater, if the Permittee does not demonstrate compliance with the requirement of Condition 2.4.3(a)(iii) by supplier certification in accordance with 40 CFR 60.48c(f), the Permittee shall also conduct sampling and analysis of this fuel in accordance with 40 CFR 60.46c(d).
- c. The Permittee shall conduct sampling and analysis of the recovered petroleum distillate burned in the affected heater for its sulfur content in accordance with 40 CFR 60.46c(d).

2.4.10 Monitoring Requirements

- a. Pursuant to 40 CFR 63.7540 and Table 8 of 40 CFR 63 Subpart DDDDD, beginning on the date that the affected heater first operates as a unit designed to burn liquid, the Permittee shall comply with applicable monitoring requirements of 40 CFR 63 Subpart DDDDD. In particular, as the affected heater is subject to operating parameter limits pursuant to this NESHAP (see Condition 2.4.6(c)), for the affected heater, the Permittee shall:
 - i. Develop a site-specific monitoring plan in accordance with 40 CFR 63.7505(d).
 - ii. Pursuant to 40 CFR 63.7535, conduct monitoring according to the site-specific monitoring plan for the parameters for which there are operating parameter limits.
- b. For the affected scrubber, the Permittee shall install operate and maintain instrumentation to measure either the temperature of the flue gas downstream of the condenser or the temperature of the recovered condensate.
- c. If the testing required by Condition 2.4.8-2 is conducted for the exhaust from the scrubber, the Permittee shall install, calibrate, maintain and operate:
 - i. A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within 5 percent of water column gauge pressure at the level of operation and must be calibrated on an annual basis in accordance with manufacturer's instructions.
 - ii. A device for the continuous measurement of the scrubbing liquid flow rate to the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be

calibrated on an annual basis in accordance with manufacturer's instructions.

2.4.11 Recordkeeping Requirements

- a. For the affected heater, the Permittee shall comply with applicable recordkeeping requirements of the NSPS, 40 CFR 60 Subparts A and Dc, including keeping the following records:
 - i. The records specified by 40 CFR 60.7(b).
 - ii. The records related to the sulfur content of liquid fuel specified by 60.48c(e) and (f).
 - iii. The records for the amount of fuel burned specified by 60.48c(g).
- b. For the affected heater, the Permittee shall comply with applicable recordkeeping requirements of the NESHAP, 40 CFR 63 Subparts A and DDDDD, including keeping the following records, with all required records kept in accordance with 40 CFR 63.7560:
 - i. The records specified by 40 CFR 63.7540(a)(2), (3), (5) and (17) for the fuels burned in the affected heater.
 - ii. The applicable records specified by 40 CFR 63.7555.
- c. The Permittee shall keep a file containing the rated heat input capacity of the affected heater (mmBtu/hour), with supporting documentation.
- d. The Permittee shall keep records of the following information related to the operation of the affected heater and its emissions of NO_x, CO, PM and PM₁₀.
 - i. A file containing the following information, with supporting documentation.
 - A. Calculations for the maximum hourly emission rates of each pollutants (lbs/mmBtu and lbs/hour);
 - B. The heat content of each fuel that is burned (Btu/scf for natural gas and Btu/gallon for liquid fuel).
 - ii. The usage of each fuel (mmscf/month and mmscf/year for natural gas and gallons/month and gallons/year for distillate fuel oil and recovered petroleum distillate).
 - iii. The emissions of each pollutant (tons/month and tons/year), with supporting calculations.

2.4.12 Reporting Requirement

- a. For the affected heater, the Permittee shall comply with applicable reporting requirements of the NSPS, 40 CFR 60 Subparts A and Dc, including submittal of the following notification and reports to the Illinois EPA:
 - i. The notifications specified by 40 CFR 60.7(a) and 60.48c(a).
 - ii. Submittal of data of performance test for SO2 emissions and other information related to the sulfur content of liquid fuel as specified by accordance with 40 CFR 60.48c(b), (d) and (e).
- b. For the affected heater, the Permittee shall comply with applicable reporting requirements of the NESHAP, 40 CFR 63 Subparts A and DDDDD, including the following notification and reports to the Illinois EPA:
 - i. Initial notification, as provided for by 40 CFR 63.9(b)(5).
 - ii. Submittal of periodic compliance reports, as provided for by 40 CFR 63.7550 and Table 9 to 40 CFR 63 Subpart DDDDD.

SECTION 3: ATTACHMENTS

Attachment 1: Project Emissions Increases Summary (Tons/Year)

| Operation | Emissions | | | | |
|--|-----------------|------|-----|-----------------|--|
| | NO _x | CO | VOM | SO ₂ | PM/PM ₁₀ /PM _{2.5} |
| Wet Sand Handling Units | --- | --- | --- | --- | 0.4 |
| Dry Sand Transfer (DC7-2000) | --- | --- | --- | --- | 0.6 |
| Dry Sand Storage (DC7-2100) | --- | --- | --- | --- | 3.3 |
| Sand Screening North Tower (DC7-3000) | --- | --- | --- | --- | 6.6 |
| Sand Screening South Tower (DC7-4000) | --- | --- | --- | --- | 6.6 |
| Sand Transfer to Coating (DC7-5000) | --- | --- | --- | --- | 5.6 |
| Coated Sand Transfer/Storage (DC7-5100) | --- | --- | --- | --- | 5.6 |
| Sand Loadout Process (DC7-6000) | --- | --- | --- | --- | 5.1 |
| Rotary Sand Dryers (DC7-1000/DC7-1100) | 88.8 | 74.6 | 4.9 | 1.1 | 13.6 |
| Pre-Heater and Space Heaters | 12.8 | 10.7 | 1.5 | 0.8 | 1.5 |
| Sand Coating Operation | --- | --- | 1.1 | --- | 9.0 |
| Affected Heater (for Coating Line Dryer) | 18.2 | 8.7 | 1.1 | 0.4 | 1.8 |
| TOTAL: | 119.8 | 94.0 | 8.6 | 2.3 | 59.7 |
| Significance Threshold: | 250 | 250 | 250 | 250 | 250 |
| Greater Than Significant? | No | No | No | No | No |

Attachment 2: List of Dry Sand Handling Units and Associated Control Equipment

| Operation | Emission Unit | Description | Emission Control Equipment |
|--|-----------------------------------|---|--------------------------------------|
| Dry Sand Transfer | Conveyors | Transfer dry sand from dryers to the dry sand storage tank. | Baghouse DC7-2000 |
| Dry Sand Storage | Conveyors | Stores dry sand and transfers dry sand from the storage tank to screening. | Baghouse DC7-2100 |
| | Storage Silo/Tank | | |
| Sand Screening - North Screening Tower | Conveyors | Transfer dry sand to North Screen Tower and South Screen Tower for screening, sizing and storage. | North Screen Tower Baghouse DC7-3000 |
| | Weigh Belts | Transfer sand from storage silos to screens. | |
| | Bucket Elevators | Transfer sand from storage silos to screens. | |
| | Scalping Screens | Eliminate off-spec or oversized material. | |
| | Screens | Properly sizes finished dry sand. | |
| | Storage Silo/Tank (dry sand) | Stores dry sand prior to screening. | |
| | Storage Silo/Tank (screened sand) | Stores certain sizes of finished dry sand. | |
| Sand Screening - South Screening Tower | Conveyors | Transfer dry sand to the North Screen Tower and South Screen Tower for screening, sizing and storage. | South Screen Tower Baghouse DC7-4000 |
| | Weigh Belts | Transfer sand from storage silos to screens. | |
| | Bucket Elevators | Transfer sand from storage silos to screens. | |
| | Scalping Screens | Eliminates off-spec or oversized material. | |
| | Screens | Properly sizes finished dry sand. | |
| | Storage Silo/Tank (dry sand) | Stores dry sand prior to screening. | |
| | Storage Silo/Tank (screened sand) | Stores certain sizes of finished dry sand. | |
| Sand Transfer to Coating | Conveyors | Transfer material from Screen Towers to coating process and within the coating process. | Baghouse DC7-5000 |
| | Weigh Belt Feeder | Transfer material within coating process | |
| | Bucket Elevators | Transfer material within coating process. | |
| | Storage Silo/Tank | Storage of material prior to pre-heating and coating. | |
| Coated Sand Transfer and Storage | Bucket Elevator | Transfer cooled, finished sand product to storage. | Baghouse DC7-5100 |
| | Conveyors | Transfer product within coating process and to loadout process. | |

| Operation | Emission Unit | Description | Emission Control Equipment |
|----------------------|--------------------|--|----------------------------|
| | Scalping Screens | Coated product sizing. | |
| | Blend Bin | Coated product blending. | |
| | Storage Silo/Tanks | Storage of cooled, finished sand product. | |
| Sand Loadout Process | Conveyors | Transfers final material from either the North/South Screen Towers or the Coating Operation to Loadout Spouts. | Baghouse DC7-6000 |
| | Storage Bins | Storage area prior to loadout. | |
| | Loadout Spouts | Final material is loaded into railcars. | |

Attachment 3: Standard Permit Conditions

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS
ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits, which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Illinois EPA and a supplemental written permit issued.
4. The Permittee shall allow any duly authorized agent of the Illinois EPA upon the presentation of credentials, at reasonable times:
 - a. To enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
 - b. To have access to and to copy any records required to be kept under the terms and conditions of this permit,
 - c. To inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
 - d. To obtain and remove samples of any discharge or emissions of pollutants, and
 - e. To enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:

- a. Shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
 - b. Does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities.
 - c. Does not release the Permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations.
 - d. Does not take into consideration or attest to the structural stability of any units or parts of the project, and
 - e. In no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Illinois EPA before the equipment covered by this permit is placed into operation.
- b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Illinois EPA may file a complaint with the Board for modification, suspension or revocation of a permit.
- a. Upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed, or
 - b. Upon finding that any standard or special conditions have been violated, or
 - c. Upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

PERMIT EXAMPLE

INDIANA DEM

- Permit to construct a new ceramic coater and associated oven at an existing facility with the following emission units:
 - R & D Ceramic Coating Operation
 - Natural Gas Oven
- Emission units are subject to several NSPS and NESHAP



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

To: Interested Parties

Date: October 29, 2015

From: Matthew Stuckey, Chief
Permits Branch
Office of Air Quality

Source Name: Delta Faucet Company

Permit Level: Administrative Amendment

Permit Number: 031-36274-00007

Source Location: 1425 West Main Street, Greensburg, Indiana

Type of Action Taken: Changes that are administrative in nature

Notice of Decision: Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>
To view the document, select Search option 3, then enter permit 36274.

If you would like to request a paper copy of the permit document, please contact IDEM's central file room:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

(continues on next page)

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

Luke Fullenkamp
Delta Faucet Company
1425 West Main Street
Greensburg, IN 47240

October 29, 2015

Re: 031-36274-00007
Administrative Amendment to
M031-20848-00007

Dear Mr. Fullenkamp:

Delta Faucet Company was issued a Minor Source Operating Permit MSOP Renewal No. M031-20848-00007 on August 26, 2008 for a stationary chrome faucet electroplating source located at 1425 West Main Street, Greensburg, Indiana. On September 15, 2015, the Office of Air Quality (OAQ) received an application from the source requesting to install one (1) R & D ceramic coating operation and one (1) natural gas-fired QA oven.

Pursuant to 326 IAC 2-6.1-6(d) (11), this change to the permit is considered an administrative amendment because the permit is amended to add an emissions unit, subject to 326 IAC 2-1.1-3 (Exemptions), at the request of the applicant.

The following are the emissions units:

- (1) One (1) ceramic coating operation permitted in 2015 for construction, with a maximum production rate of 4.2 gallon of coating per day, and 0.17 gallons of coating used per unit coated, controlled by dual filtration dust collector.
- (2) One (1) natural gas-fired QA oven permitted in 2015 for construction, with a maximum capacity of 0.50 MMBtu/hr and using no control.

See the attached Technical Support Document and Appendix A for the detailed changes.

All other conditions of the permit shall remain unchanged and in effect. Please find attached the entire MSOP as amended. The permit references the below listed attachments, since these attachments have been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of these attachments with this amendment:

- Attachment A: NSPS 40 CFR 60, Subpart Dc for Small Industrial-Commercial-Institutional Steam Generating Units
- Attachment B: NESHAP 40 CFR 63, Subpart WWWW (6W) Area Source Standards for Plating and Polishing Operations
- Attachment C: NESHAP 40 CFR 63, Subpart N for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks

Previously issued approvals for this source containing these attachments are available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.



A State that Works

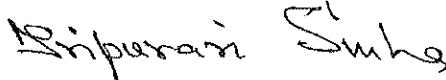
Delta Faucet Company
Greensburg, Indiana
Permit Reviewer:: Anh Nguyen

Page 2 of 2
Administrative Amendment No. 031-36274-00007

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/ideM-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/ideM/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/ideM/6900.htm>.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Anh Nguyen of my staff at 317-233-5334 or 1-800-451-6027, and ask for extension 5-334.

Sincerely,



Tripurari P. Sinha, Ph. D., Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit,
Technical Support Document; and
Appendix A

TS/AN

cc: File - Decatur County
Decatur County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Minor Source Operating Permit Renewal OFFICE OF AIR QUALITY

**Delta Faucet Company
1425 West Main Street
Greensburg, Indiana 47240**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

| | |
|--|--|
| Operation Permit No.: M031-20848-00007 | |
| Original Signed by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality | Issuance Date: August 26, 2008 Expiration Date: August 28, 2018 |

First Notice-Only Change No.: 031-28752-00007, issued January 20, 2010;
Second Notice-Only Change No.: 031-29773-00007, issued December 1, 2010;
Third Notice-Only Change No.: 031-31320-00007, issued February 8, 2012;
First Minor Permit Revision No. 031-31652-00007 issued May 3, 2012;
First Administrative Amendment No. 031-33402-00007, issued August 26, 2013; and
Second Administrative Amendment No. 031-33662-00007, issued on October 18, 2013

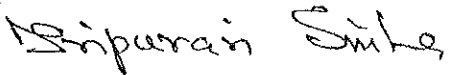
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|---|---|
| Third Administrative Amendment No. 031-36274-00007 | |
| Issued by:  Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality | Issuance Date: October 29, 2015 Expiration Date: August 28, 2018 |

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Annual Notification

Chromium Electroplating NESHAP Ongoing Compliance Status Report Malfunction Report .

- Attachment A: NSPS 40 CFR 60, Subpart Dc for Small Industrial-Commercial-Institutional Steam Generating Units
- Attachment B: NESHAP 40 CFR 63, Subpart W (6W) Area Source Standards for Plating and Polishing Operations
- Attachment C: NSPS 40 CFR 63, Subpart N for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary chrome faucet electroplating source.

| | |
|------------------------------|---|
| Source Address: | 1425 West Main Street, Greensburg, Indiana 47240 |
| General Source Phone Number: | 812-663-4433 |
| SIC Code: | 3432 (Plumbing Fixture Fittings and Trims) |
| County Location: | Decatur |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Minor Source Operating Permit Program Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories |

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) decorative chromium electroplating tank, identified as T27, constructed prior to December 16, 1993, using a trivalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 1038Cr. This tank is also equipped with a three stage mesh-pad scrubber that is not used for compliance to NESHAP.

Under 40 CFR 63, Subpart N, this is considered an existing decorative chromium electroplating tank [40CFR 63, Subpart N];

- (b) One (1) Multi-Finish electroplating line, identified as 3700, with a capacity of 1,800 pounds of metal and plastic parts per hour, consisting of the following:

- (1) Three (3) nickel plating tanks, identified as stations 39 through 42, 49 through 52, and 53 through 56, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack

[40 CFR Part 63, Subpart W];

- (2) One (1) copper sulfate plating tank, identified as stations 32 through 35, and one (1) alkaline copper plating tank, identified as stations 27 through 28, approved for construction in 2013, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack

[40 CFR Part 63, Subpart W];

- (3) One (1) decorative chromium plating tank identified as tank 3700-S6768, with two (2) stations, identified as stations 67 and 68, using a fume suppressant containing a wetting agent as control, and exhausting through the chromium

scrubber, which is a three stage mesh-pad scrubber and is not used for compliance to NESHAP, and exhausting through the Multi-Finish Line Chromium Scrubber Stack.

Under 40 CFR 63, Subpart N, this is considered an existing decorative chromium electroplating tank [40CFR 63, Subpart N];

- (4) One (1) chrome pre-dip tank, identified as station 64, equipped with the chromium scrubber, and exhausting through the Multi-Finish Line Chromium Scrubber Stack;
- (5) One (1) rack strip tank, identified as stations 207 through 210, equipped with the rack strip scrubber, and exhausting through the Multi-Finish Line Rack Strip Scrubber Stack; and one (1) ammonium bifluoride rack strip tank, identified as station 191 through 192, approved for construction in 2013,, exhausting within the building
- (6) Two (2) chrome strip tanks, identified as stations 15, 197 through 198, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack and to the Multi-Finish Line Rack Strip Scrubber Stack, respectively;
- (7) Rinse tanks, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;
- (8) Five (5) cleaner tanks, identified as stations 3 through 5, 7 through 8, 11 through 12, 18, and 22.

One (1) oxidizer tank (Black Magic) identified as station 46 and one (1) acid tank identified as station 25, equipped with the nickel/cleaner scrubber as in 6 and 7, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack;

(c) Natural Gas Combustion Boilers:

- (1) One (1) natural gas-fired boiler, identified as 586 (south), constructed in 1975, exhausting at stack 586, capacity: 25.20 million British thermal units per hour;
- (2) One (1) natural gas-fired boiler, identified as 2256 (north), constructed in 1994, exhausting at stack 2256, capacity: 14.70 million British thermal units per hour [40 CFR 60 Subpart Dc];

- (d) One (1) powder spray booth, identified as 4160, constructed in 2005, also utilizing an electric cure oven for R&D purposes, equipped with an integral cartridge filtration system, exhausting inside, capacity; 2.6 tons of parts coated per hour, and using 13.9 pounds of powder per hour;
- (e) One (1) chromate conversion tank, identified as powder chromate tank, constructed in July 2009, with a maximum capacity of 888 parts per hour, no control.

[40 CFR Part 63, Subpart WWWWWW];

- (f) Three (3) parts washers, using approximately combined 778 total gallons of solvent per year, to remove oil and grease from metal parts, using solvent that contains 100% VOC;
- (g) Buffing Stations:

- (1) Twenty-two (22) hand buffing stations, installed between 1965 and 2005, maximum capacity 65,000 acfm, equipped with one (1) air washers, identified as 3915, and exhausting at stacks 3915
 - (2) Twenty-two (22 NF) hand buffing stations, equipped with three Monroe cartridge dust collectors, maximum capacity of 9900 acfm, with 99% control efficiency, exhausting inside the building,
 - (i) Sixteen (16) hand buffing stations, installed between 1965 and 2005.
 - (ii) Six (6 NF) hand buffing stations, installed in 2013.
 - (3) Five (5) robot buffing stations; identified as 3213, and 3215; constructed in 2000, and 2001, respectively; and robot buffing stations; identified as 4081, 4082, and 4083; constructed in May 2005; and each station also connected to an air washer, identified as 3915, exhausting at stack 3915;
 - (3) Three (3) rotary buffing stations; identified as 433, 236, and 4084; installed between 1965 and 2005, and each station connected to air washers, identified as 3915 and exhausting to stacks 3915;
 - (4) One (1) texturing station; identified as 4431 and one (1) L4 rotary station; identified as 709; installed between 1985 and 2006, and each station connected to air washers identified as 3915 and exhausting to stacks 3915;
 - (5) One(1) soap dispenser machine 3159, exhausting inside the building through cartridge filters identified as 3161.
- (h) Natural Gas Combustion Ovens:
- (1) One (1) natural gas-fired fluidized bed burn-off oven (2907), rated at 0.99 million British thermal units per hour (MMBtu/hr), with a maximum capacity of 301 pounds per hour of parts using 1.56 pounds per hour of sand, using a cyclone for particulate control, and exhausting at one (1) stack identified as 2918;
 - (2) One (1) natural gas-fired curing oven, identified as 4180 custom coating, constructed in 2005, and exhausting at stack 4160, capacity: 0.8 million British thermal units per hour;
 - (3) One (1) natural gas-fired dry-off oven, identified as 4179, constructed in 2005, capacity: 0.5 million British thermal units, and exhausting at stack 4179;
- (i) One (1) nickel electroplating bath, identified as T22a, equipped with a combination packed bed/chevron blade wet scrubber to minimize nickel emissions from T22a, and exhausting at stack 1038Ni
- [An affected facility under 40 CFR 63, NESHAP WWWWWW];
- (j) One (1) nickel electroplating bath, identified as T22b, approved for construction in 2009, equipped with a combination packed bed/chevron blade wet scrubber to minimize nickel emissions from T22b, and exhausting at stack 1038Ni
- [An affected facility under 40 CFR 63, NESHAP WWWWWW];
- (k) One (1) chromate conversion tank, identified as 1038 chromate tank, constructed in April 2010, with maximum capacity of 64 parts per hour, no control.
[40 CFR Part 63, Subpart WWWWWW];

(l) Plating Tanks:

- (1) One (1) copper plating tank, consisting of two tanks plumbed together, identified as T23-T24, equipped with a combination packed bed/chevron blade/mesh pad wet scrubber to minimize copper emissions from T23-T24, and exhausting at stack 574;

(m) Strip Lines:

- (1) One (1) strip line, identified as 255P using sulfuric acid, ammonium bifluoride, equipped with one (1) packed bed wet scrubber, identified as machine number 2986, and exhausting at stack 255P. A used acid tank and an acid/cleaner tank exhaust to another packed bed wet scrubber, identified as machine number 3312, and exhausting at stack the 255R;
- (2) One (1) rack strip line, identified as 1038, approved for construction in 2012, consisting of (2) rack strips tanks, four (4) rinse tanks and one (1) hot rinse tank, equipped with a combination packed bed/chevron blade/mesh pad wet scrubber to minimize any stripping related emissions from this line, and exhausting to stack 3230, maximum capacity; 2.05 pounds of alkaline cleaner per hour, 0.09 pound of aqua ammonia per hour, 0.06 pound of Acetic Acid per hour, and 0.49 pound of Nitric Acid per hour;
- (3) One (1) rack strip line, identified as 4560, constructed in 2007, including two (2) rinse tanks and one (1) strip tank, maximum capacity; 2.05 pounds of alkaline cleaner per hour, 0.09 pound of aqua ammonia per hour, 0.06 pound of Acetic Acid per hour, and 0.49 pound of Nitric Acid per hour;

(n) One (1) maintenance tool room which includes:

- (1) One (1) maintenance welding booth, identified as Booth 11-1, connected to a mesh pad filter system, exhausting to the interior of the building, capacity: 0.2 pound of acetylene/oxygen/argon welding wire per hour;
- (2) Multiple hand grinding units;
- (3) Multiple hand drilling units;
- (4) One (1) maintenance glass bead blast cabinet, identified as unit 711, utilizing a collector for particulate control, constructed in 1979;

(o) Glass bead blast Cabinets:F

- (1) One (1) PVD Unit 1065 glass bead blast cabinet utilizing a collector for particulate control, constructed in 1990;
- (2) One (1) additional glass bead blast cabinets: (1) identified as buffing unit 4118 glass bead blast cabinet utilizing a collector;

(p) Two (2) lab hoods;

(q) One (1) inductively coupled plasma (ICP) unit;

(r) One (1) passivation process, identified as line 9069, constructed in June 1998, consisting of :

- (1) One (1) chromate/nitric acid/water solution tank, identified as Tank #1;

- (2) One (1) rinse water tank, identified as Tank #2;
- (3) One (1) hot deionized water tank, identified as Tank #3 equipped with a combination packed bed/chevron blade/mesh pad wet scrubber;
- (s) Various machining equipment where aqueous cutting coolant continuously floods the machining surface in the machining area. There are no criteria pollutants being emitted; 326 IAC 2-1.1-3 (e)(10)(B);
- (t) One (1) open tumblers, identified as 4119, constructed in 2005, using plastic media to smooth edges of parts;
- (u) One (1) wastewater treatment area, constructed in 1974, the pH is adjusted utilizing sulfuric acid, consisting of:
 - One bulk waste cleaner tank;
- (v) One (1) dip area, identified as 4406, consisting of a sulfuric acid/water tank equipped with a mist eliminator exhausting externally, one (1) water rinse tank, and one (1) water spray tank, to remove a white ash material contained on racks. There are no criteria pollutants emitted because of dip operation;
- (w) Four (4) R & D hand dipping/manual plating lines, used for research and development as well as production of electroless copper plating. These R&D lines consist of copper, nickel, trivalent chromium, non-cyanide bronze plating tanks, controlled by two (2) horizontal wet pack bed scrubbers, and exhausting through Stacks 4414 and 4467.
- (x) Four (4) salt spray booths, identified as 2043, 4717, 4760, and 3850, constructed in 1985, 2011, 2013, and 2003 respectively, spraying an aqueous salt solution and no criteria pollutants are generated from this process;
- (y) Four (4) physical vacuum deposition (PVD) chambers; identified as 3740, 3787, 3940, and 4063; constructed in 2003, 2003, 2004, and 2004, respectively. PVD process deposits Zirconium material onto various parts. No HAPs are generated;
- (z) One (1) spray paint booth, identified as 4735, approved for construction in 2012, with a maximum capacity to paint 60 racks per hour, containing 70 plastic parts each rack, using a solvent-based spray coating that will be applied with one electrostatic air atomized spray gun inside a spray booth, using panel filters for particulate control, and exhausting through stack Spray Booth.
- (aa) Polystyrene molding operation, identified as:
 - (1) Two(2) vacuum formers for the manufacture of shower walls and floor, identified as Polystyrene Forming from Sheet #1 and sheet #2, estimated potential usage is 1,961.64 tons per year each, to be installed in August 2013.
 - (2) One (1) glue used in packaging estimated potential usage is 6494.71 gallons per year, to be installed in August 2013.
 - (3) Grinding operation to be installed in 2013.
- (bb) Polystyrene molding operation, identified as:
 - (1) Three (3) vacuum molding machines, two-part foam application identified as Polystyrene Forming from Sheet #1, Sheet #2 and sheet #3, estimated potential usage is 450 lb/hr each, approved for construction in 2013.

- (2) Grinding operation with a maximum capacity of 508.29 lb/hr approved for construction in 2013.
- (3) Trimming operations 1, 2 and 3 with a maximum capacity of 508.29 lb/hr each approved for construction in 2013.
- (4) Air make-up unit with a maximum capacity of 2.70 MMBtu/hr approved for construction in 2013.
- (cc) One (1) R & D ceramic coating operation permitted in 2015 for construction, with a maximum production rate of 4.2 gallon of coating per day, and 0.17 gallons of coating used per unit coated, controlled by dual filtration dust collector.
- (dd) One (1) natural gas-fired QA oven permitted in 2015 for construction, with a maximum capacity of 0.50 MMBtu/hr and using no control.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.3 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, M031-20848-00007, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.4 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.5 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.6 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege

This permit does not convey any property rights of any sort or any exclusive privilege.

B.8 Duty to Provide Information

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of

requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The Permittee shall implement the PMPs.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

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- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to M031-20848-00007 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least one hundred twenty (120) days prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.16 Inspection and Entry

~~[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]~~

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit

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responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.18 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.19 Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

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C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.9 Performance Testing [326 IAC 3-6]

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date.
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

C.11 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.12 Instrument Specifications [326 IAC 2-1.1-11]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

C.13 Response to Excursions or Exceedances

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.

- (e) The Permittee shall record the reasonable response steps taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.15 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.16 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) Natural Gas Combustion Boilers:

- (1) One (1) natural gas-fired boiler, identified as 586 (south), constructed in 1975, exhausting at stack 586, capacity: 25.20 million British thermal units per hour;
- (2) One (1) natural gas-fired boiler, identified as 2256 (north), constructed in 1994, exhausting at stack 2256, capacity: 14.70 million British thermal units per hour

[40 CFR 60, Subpart Dc];

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.1.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3(e) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(c)), particulate emissions from all facilities used for indirect heating purposes which have 250 million British thermal units or less heat input or less and began operation after June 8, 1972, shall in no case exceed 0.6 pound of particulate matter per million British thermal units heat input. Therefore, the one (1) boiler, identified as 586 (south), shall not exceed more than 0.6 pound per million British thermal units.

D.1.2 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]

- (a) Pursuant to 326 IAC 6-2-4(a), the PM emissions from the natural gas-fired boiler, identified as 2256 (north), shall not exceed 0.35 pound per million British thermal units.

These limitations were computed using the following equation:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (d) One (1) powder spray booth, identified as 4160, constructed in 2005, also utilizing an electric cure oven for R&D purposes, equipped with an integral cartridge filtration system, exhausting inside, capacity; 2.6 tons of parts coated per hour, and using 13.9 pounds of powder per hour;
- (e) One (1) chromate conversion tank, identified as powder chromate tank, constructed in July 2009, with a capacity of 888 parts per hour

[40 CFR Part 63, Subpart WWWWWW];

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.2.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e) the particulate emissions from powder spray booth, identified as 4160, shall be limited to 7.78 pounds per hour when operating at a process weight rate of 2.6 tons per hour.

The limitations for the powder spray booth, identified as 4160, was calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

D.2.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for the powder booth, 4160, powder reclaim system for the booth, and its cartridge filtration system which is considered integral to the system. Section B -- Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance Plan required by this condition.

Compliance Determination Requirements [326 IAC 2-6.1-5(a)(2)]

D.2.3 Particulate Control [326 IAC 6-3-2] [326 IAC 2-6.1-5(a)(2)]

The cartridge filtration system integral to the spray booth, shall be in operation at all times when the powder spray booth, identified as 4160 is in operation and shall operate per manufacturer's specifications.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (f) Three (3) parts washers, using approximately combined 778 gallons of solvent per year, to remove oil and grease from metal parts, using solvent that contains 100% VOC;

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.3.1 Volatile Organic Compound (VOC) [326 IAC 8-3-2]

- (a) Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaning degreasers constructed after January 1, 1980, the Permittee shall ensure the following control equipment and operating requirements are met:
- (1) Equip the degreaser with a cover;
 - (2) Equip the degreaser with a device for draining cleaned parts;
 - (3) Close the degreaser cover whenever parts are not being handled in the degreaser;
 - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).
 - (6) Store waste solvent only in closed containers.
 - (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.
- (b) Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaning degreasers without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure the following additional control equipment and operating requirements are met:
- (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) A refrigerated chiller.
 - (D) Carbon adsorption.
 - (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
 - (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
 - (3) If used, solvent spray:
 - (A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

D.3.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

- (a) Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), the Permittee shall not operate a cold cleaning degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) Condition D.3.2 does not apply to solvents containing less than one percent (1%) VOC by weight.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.3.3 Record Keeping Requirements [326 IAC 2-6.1-5(a)(2)]

- (a) To document the compliance status with Condition D.3.2, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.
 - (1) The name and address of the solvent supplier.
 - (2) The date of purchase.
 - (3) The type of solvent purchased.
 - (4) The total volume of the solvent purchased.
 - (5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (cc) One (1) R & D ceramic coating operation permitted in 2015 for construction, with a maximum production rate of 4.2 gallon of coating per day, and 0.17 gallons of coating used per unit coated, controlled by dual filtration dust collector.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.4.1 Particulate Emission Limitation, Work Practices, and Control Technologies [326 IAC 6-3-2(d)]

- (a) Particulate from each conformal coater operation shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
 - (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

D.4.2 Preventative Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for this facility and its associated control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) Natural Gas Combustion Boilers:

- (2) One (1) natural gas-fired boiler, identified as 2256 (north), constructed in 1994, exhausting at stack 2256, capacity: 14.70 million British thermal units per hour

[40 CFR 60, Subpart Dc];

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standard (NSPS) Requirements

E.1.1 General Provisions Relating to NSPS Dc [326 IAC 12-1-1] [40 CFR 60, Subpart A]

- (a) The provisions of 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which are incorporated as 326 IAC 12-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart Dc.

- (b) Pursuant to 40 CFR 60.4 the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.1.2 Area Source Standards for Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Dc]

The Permittee shall comply with the following provisions of 40 CFR 60, Subpart Dc as specified as below (Attachment A of this permit):

1. 40 CFR 60.40c (a) (b) (d) (e)
2. 40 CFR 60.41c
3. 40 CFR 60.48c (a) (h) (i) (j)

SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (b) One (1) Multi-Finish electroplating line, identified as 3700, with a capacity of 1,800 pounds of metal and plastic parts per hour, consisting of the following:
 - (1) Three (3) nickel plating tanks, identified as stations 39 through 42, 49 through 52, and 53 through 56, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack [40 CFR Part 63, Subpart WWWWWWW];
 - (2) One (1) copper sulfate plating tank, identified as stations 32 through 35, and one (1) alkaline copper plating tank, identified as stations 27 through 28, approved for construction in 2013, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack. [40 CFR Part 63, Subpart WWWWWWW];
- (e) One (1) chromate conversion tank, identified as powder coating chromate tank, constructed in July 2009, with maximum capacity of 888 parts per hour, no control., [40 CFR 63, Subpart WWWWWWW];
- (i) One (1) nickel electroplating bath, identified as T22a, equipped with a combination packed bed/chevron blade wet scrubber to minimize nickel emissions from T22a, and exhausting at stack 1038Ni [An affected facility under 40 CFR 63, NESHAP WWWWWWW];
- (j) One (1) nickel electroplating bath, identified as T22b, approved for construction in 2009, equipped with a combination packed bed/chevron blade wet scrubber to minimize nickel emissions from T22b, and exhausting at stack 1038Ni [An affected facility under 40 CFR 63, NESHAP WWWWWWW];
- (k) One (1) chromate conversion tank; identified as 1038 chromate tank, constructed in April 2010, with maximum capacity of 64 parts per hour, no control. [40 CFR 63, Subpart WWWWWWW].

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements

E.2.1 General Provisions Relating to NESHAP WWWWWWW [326 IAC 20-1-1][40 CFR 63, Subpart A]

- (a) The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart WWWWWWW.
- (b) Pursuant to 40 CFR 63.10 the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.2.2 Area Source Standards for Plating and Polishing Operations [40 CFR 63, Subpart WWWWWWW]

The Permittee shall comply with the following provisions of 40 CFR 63, Subpart WWWWWWW as specified below (Attachment B of this permit):

1. 40 CFR 63.11504 (a)(1)(i), (ii), (iv)
2. 40 CFR 63.11504 (a)(2)
3. 40 CFR 63.11505 (a)(1)
4. 40 CFR 63.11505 (b)
5. 40 CFR 63.11506 (a)
6. 40 CFR 63.11507 (a)(1),(2)
7. 40 CFR 63.11507 (g)
8. 40 CFR 63.11508 (a)-(c)(2)
9. 40 CFR 63.11508 (d)(1)-(4)
10. 40 CFR 63.11509 (a)(1),(2)
11. 40 CFR 63.11509 (b)-(c)(2)(i)
12. 40 CFR 63.11509 (c)(6),(7)
13. 40 CFR 63.11509 (d)-(f)
14. 40 CFR 63.11510
15. 40 CFR 63.11511

SECTION E.3

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) decorative chromium electroplating tank, identified as T27, constructed prior to December 16, 1993, using a trivalent chromium bath, using a chemical fume suppressant containing a wetting agent for control and exhausting at stack 1038Cr. This tank is also equipped with a three stage mesh-pad scrubber that is not used for compliance to NESHAP.

Under 40 CFR 63, Subpart N, this is considered an existing decorative chromium electroplating tank [40CFR 63, Subpart N];

- (b) One (1) Multi-Finish electroplating line, identified as 3700, with a capacity of 1,800 pounds of metal and plastic parts per hour, consisting of the following:

- (1) Three (3) nickel plating tanks, identified as stations 39 through 42, 49 through 52, and 53 through 56, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack

[40 CFR Part 63, Subpart W];

- (2) One (1) copper sulfate plating tank, identified as stations 32 through 35, and one (1) alkaline copper plating tank, identified as stations 27 through 28, approved for construction in 2013, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack .

- (3) One (1) decorative chromium plating tank identified as tank 3700-S6768, with two (2) stations, identified as stations 67 and 68, using a fume suppressant containing a wetting agent as control, and exhausting through the chromium scrubber, which is a three stage mesh-pad scrubber and is not used for compliance, and exhausting through the Multi-Finish Line Chromium Scrubber Stack. Under 40 CFR 63, Subpart N, this is considered an existing decorative chromium electroplating tank

[40CFR 63, Subpart N];

- (4) One (1) chrome pre-dip tank, identified as station 64, equipped with the chromium scrubber, and exhausting through the Multi-Finish Line Chromium Scrubber Stack;

- (5) One (1) rack strip tank, identified as stations 207 through 210, equipped with the rack strip scrubber, and exhausting through the Multi-Finish Line Rack Strip Scrubber Stack;, and one (1) ammonium bifluoride rack strip tank, identified as station 191 through 192, approved for construction in 2013, exhausting within the building.

- (6) Two (2) chrome strip tanks, identified as stations 15, 197 and 198, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack and to the Multi-Finish Line Rack Strip Scrubber Stack, respectively;

- (7) Rinse tanks, equipped with the nickel/cleaner scrubber, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack; and

- (8) Five (5) cleaner tanks, identified as stations 3 through 5, 7 through 8, 11 through 12, 18, and 22.

One (1) oxidizer tank (Black Magic) identified as station 46 and one (1) acid tank identified as station 25, equipped with the nickel/cleaner scrubber as in 6 and 7, and exhausting through the Multi-Finish Line Nickel/Cleaner Scrubber Stack.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements

E.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63, the Permittee shall comply with the provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the decorative trivalent chromium electroplating tanks, identified as Tank 27 and Tank 3700-S6768, as specified in Appendix A of 40 CFR Part 63, Subpart N apply to the facilities described in this section except when otherwise specified in 40 CFR 63 Subpart N.

- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.3.2 Chromium Electroplating NESHAP [326 IAC 20-8-1] [40 CFR 63.342(c)&(f)] [40 CFR 63.343(a)(1)&(2)]

Pursuant to 40 CFR Part 63, Tank T27, and Tank 3700-S6768, are subject to 40 CFR Part 63, Subpart N, which is incorporated by reference as 326 IAC 20-8-1. The Permittee which engages in decorative chromium electroplating operation shall comply with the provisions of 40 CFR Part 63, Subpart N (included as Attachment C of this permit).

- (a) 40 CFR 63.340
- (b) 40 CFR 63.341
- (c) 40 CFR 63.342(a), (b), (c), (d), (d), (f)
- (d) 40 CFR 63.343(a)(1)(3)(4)(5)(6), (b), (c)
- (e) 40 CFR 63.344
- (f) 40 CFR 63.345
- (g) 40 CFR 63.346
- (h) 40 CFR 63.347
- (i) 40 CFR 63.348

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

| | |
|----------------------|---------------------------|
| Company Name: | Delta Faucet Company |
| Address: | 1425 West Main Street |
| City: | Greensburg, Indiana 47240 |
| Phone #: | 812-663-4433 |
| MSOP #: | M031-20848-00007 |

I hereby certify that Delta Faucet Company is :

☐ still in operation.

☐ no longer in operation.

I hereby certify that Delta Faucet Company is :

☐ in compliance with the requirements of
MSOP M031-20848-00007.

☐ not in compliance with the requirements of
MSOP M031-20848-00007.

| |
|---------------------------------------|
| Authorized Individual (typed): |
| Title: |
| Signature: |
| Date: |

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

| |
|-----------------------|
| Noncompliance: |
| |
| |
| |
| |

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

**CHROMIUM ELECTROPLATING NESHAP
ONGOING COMPLIANCE STATUS REPORT**

Source Name: Delta Faucet Company
Source Address: 1425 West Main Street, Greensburg, IN 47240
Mailing Address: 1425 West Main Street, Greensburg, IN 47240
MSOP No.: 031-20848-00007

Tank ID #: _____
Type of process: [Hard, Decorative, Anodizing]
Monitoring Parameter: [e.g., Surface tension of the electroplating bath]
Parameter Value: [e.g., 45 dynes per centimeter]
Limits: Total chromium concentration may not exceed _____ mg/dscm

This form is to be used to report compliance for the Chromium Electroplating NESHAP only.
The frequency for completing this report may be altered by the IDEM, OAQ, Compliance and enforcement branch.

Companies classified as a major source: submit this report no later than 30 days after the end of the reporting period.
Companies classified as an area source: complete this report no later than 30 days after the end of the reporting period,
and retain on site unless otherwise notified.

This form consists of 2 pages

Page 1 of 2

BEGINNING AND ENDING DATES OF THE REPORTING PERIOD:

TOTAL OPERATING TIME OF THE TANK DURING THE REPORTING PERIOD:

MAJOR AND AREA SOURCES: CHECK ONE

- 9 NO DEVIATIONS OF THE MONITORING PARAMETER ASSOCIATED WITH THIS TANK FROM THE COMPLIANT VALUE OR RANGE OF VALUES OCCURRED DURING THIS REPORTING PERIOD.
- 9 THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES DURING THIS REPORTING PERIOD (THUS INDICATING THE EMISSION LIMITATION MAY HAVE BEEN EXCEEDED, WHICH COULD RESULT IN MORE FREQUENT REPORTING).

AREA (I.E., NON-MAJOR) SOURCES OF HAP ONLY:

IF DEVIATIONS OCCURRED, LIST THE AMOUNT OF TANK OPERATING TIME EACH MONTH THAT MONITORING RECORDS SHOW THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES.

| | | | |
|-----|-----|-----|-----|
| JAN | APR | JUL | OCT |
| FEB | MAY | AUG | NOV |
| MAR | JUN | SEP | DEC |

HARD CHROME TANKS / MAXIMUM RECTIFIER CAPACITY LIMITED IN ACCORDANCE WITH 40 CFR 63.342(c)(2) ONLY:
LIST THE ACTUAL AMPERE-HOURS CONSUMED (BASED ON AN AMP-HR METER) BY THE INDIVIDUAL TANK.

| | | | |
|-----|-----|-----|-----|
| JAN | APR | JUL | OCT |
| FEB | MAY | AUG | NOV |
| MAR | JUN | SEP | DEC |

**CHROMIUM ELECTROPLATING NESHAP
ONGOING COMPLIANCE STATUS REPORT**

ATTACH A SEPARATE PAGE IF NEEDED

Page 2 of 2

IF THE OPERATION AND MAINTENANCE PLAN REQUIRED BY 40 CFR 63.342 (f)(3) WAS NOT FOLLOWED, PROVIDE AN EXPLANATION OF THE REASONS FOR NOT FOLLOWING THE PLAN AND DESCRIBE THE ACTIONS TAKEN FOR THAT EVENT:

DESCRIBE ANY CHANGES IN TANKS, RECTIFIERS, CONTROL DEVICES, MONITORING, ETC. SINCE THE LAST STATUS REPORT:

ADDITIONAL COMMENTS:

ALL SOURCES: CHECK ONE

9 I CERTIFY THAT THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE; AND, THAT THE INFORMATION CONTAINED IN THIS REPORT IS ACCURATE AND TRUE TO THE BEST OF MY KNOWLEDGE.

9 THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE NOT FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE, AS EXPLAINED ABOVE AND/OR ON ATTACHED.

Submitted by:

Title/Position:

Signature:

Date:

Phone:

Attach a signed certification to complete this report.

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY FAX NUMBER - 317 233-6865

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ? _____, 25 TONS/YEAR SULFUR DIOXIDE ? _____, 25 TONS/YEAR NITROGEN OXIDES ? _____, 25 TONS/YEAR VOC ? _____, 25 TONS/YEAR HYDROGEN SULFIDE ? _____, 25 TONS/YEAR TOTAL REDUCED SULFUR ? _____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ? _____, 25 TONS/YEAR FLUORIDES ? _____, 100 TONS/YEAR CARBON MONOXIDE ? _____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ? _____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ? _____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ? _____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ? _____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____ / ____ / 20 ____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____ / ____ / 20 ____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO₂, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

PAGE 1 OF 2

**Please note - This form should only be used to report malfunctions
applicable to Rule 326 IAC 1-6 and to qualify for
the exemption under 326 IAC 1-6-4.**

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

PERMIT EXAMPLE

KANSAS KDHE

- This permit is for the construction of a new bio-security research laboratory with the following emission units:
 - 7 Dual Fuel Boilers
 - 7 Emergency Diesel Generators
 - 5 Diesel Storage Tanks
 - 2 Pathological Waste Incinerators
- Emission units are subject to several NSPS and NESHAP.

Bureau of Air
Curtis State Office Building
1000 SW Jackson, Suite 310
Topeka, KS 66612



Phone: 785-296-1719
Fax: 785-291-3953
lladd@kdheks.gov
www.kdheks.gov/bar

Robert Moser, MD, Secretary

Department of Health & Environment

Sam Brownback, Governor

AIR EMISSION SOURCE CONSTRUCTION PERMIT

Source ID No.: 1610038

Effective Date: July 9, 2012

Source Name: United States Department of Homeland Security - National Bio and Agro-Defense Facility (U.S. DHS - NBAF)

NAICS Code: 541710, Agricultural Research and Development Laboratory

SIC Code: 8733, Agricultural Research and Development Laboratory

Source Location: 1980 Denison Avenue
Manhattan, KS 66502

Mailing Address: U. S. Department of Homeland Security (U.S. DHS)
1131 Chapel Crossing Road, FLETC, TH378C
Glynco, GA 31524

Contact Person: Timothy Barr
NBAF Site manager, U. S. DHS
Telephone: (785) 537-6247, ext. 49772; Fax: (785) 537-0875
timothy.barr@dhs.gov

This permit is issued pursuant to K.S.A. 65-3008 as amended.

I. Description of Activity Subject to Air Pollution Control Regulations

Facility Information

The U. S. Department of Homeland Security (U.S. DHS) is proposing to construct and operate the National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas (adjacent to Kansas State University). The operation of NBAF as a biosafety level-3 (BSL-3) and BSL-4 research facility would allow basic and advanced research, diagnostic testing and validation, countermeasure development, and diagnostic training for addressing high-consequence livestock diseases to U.S. agriculture and public health.

The U.S. DHS is proposing to install seven (7) boilers (each with maximum design heat-input rating of 33.475 MMBtu/hr) and seven (7) emergency generator diesel engines (each with maximum horsepower rating of 2,709 bhp) in the Central Utility Plant of the proposed facility. The seven (7) boilers will use natural gas as the primary fuel and No. 2 ultra low sulfur diesel (ULSD) fuel as the secondary fuel. Five (5) underground storage tanks, each with 40,000-gallon capacity, are being proposed for the storage of ULSD fuel.

The U.S. DHS is also proposing to install two (2) medical waste incinerators (controlled-air type with two (2) combustion chambers consisting of a primary chamber and a secondary chamber in series; each incinerator has a maximum design combustion capacity of 400 pounds per hour of waste) in the animal research laboratories of the proposed facility. The waste materials to be incinerated, such as animal carcasses and sharps, will be sterilized prior to leaving the containment area for incineration. The sterilization process of wastes will be verified during commissioning and certification prior to operation of the research laboratories and will be routinely validated as part of the operating protocols in accordance with the U.S. Department of Agriculture (USDA) and the Center for Disease Control (CDC) requirements. Flue gases from each proposed incinerator will pass through a wet scrubber system with advanced submicron particulate removal capability and a carbon adsorber system to limit the incinerator emissions to below the set standard values. The bottom ash/residue from the incinerators and particulates collected from the wet scrubber and carbon adsorber will be disposed to the municipal landfill in accordance with the applicable KDHE-Bureau of Waste Management solid waste requirements. The contaminated liquid effluent from the research laboratories will be sterilized by using heat sterilization tanks prior to discharge to the City of Manhattan sanitary sewer.

The KDHE has reviewed the air quality requirements for the proposed activity. Potential emissions of oxides of nitrogen (NO_x), carbon monoxide (CO), carbon dioxide equivalent (CO_2e), particulate matter (PM), PM equal to or less than 10 micrometers in diameter (PM_{10}), volatile organic compounds (VOCs), sulfur dioxide (SO_2), and hazardous air pollutants (HAPs) were evaluated as part of the review process. Potential emissions of other pollutants that are being regulated for incinerators, such as dioxin/furans, hydrogen chloride (HCl), lead (Pb), cadmium (Cd), and mercury (Hg) were also evaluated. The proposed activity of the U.S. DHS is subject to the provisions of **K.A.R. 28-19-300 (Construction permits and approvals; applicability)** because the emissions units' potential-to-emit (PTE) of CO_2e exceeds the permitting threshold of 100,000 tons per year, the PTE of NO_x and SO_2 exceed the permitting threshold of 40 tons per year and the PTE of PM and PM_{10} exceeds the permitting thresholds 25 and 15 tons per year, respectively. The U. S. DHS also is required to apply for a Title V Operating Permit within one (1) year of the initial startup of the proposed facility in accordance with 40 CFR Part 60 Subpart Ec Section 60.50c(1), K.A.R. 28-19-500(a)(3) and K.A.R. 28-19-510(e).

Due to potential emissions for GHG above 100,000 tons per year, the U.S. DHS has opted to take Federally Enforceable limits which will restrict the use of diesel fuel used in the emergency generators to emergency periods and periodic maintenance and testing. The enforceable limits also restrict the use of fuel oil used in the boiler units to periodic maintenance and testing and use during periods of natural gas curtailment. The U.S. DHS will be limited to below the Major Source threshold for GHG to less than 100,000 tons per year of carbon dioxide equivalent (CO_2e) by tracking natural gas and diesel fuel usage on a consecutive 12 month rolling average. Additional operational restrictions will include the prohibition of operating more than 6 boilers at any one time and a restriction on operating only one incinerator at any one time. These imposed Federally Enforceable Limits will limit GHG, NO_x , SO_2 , PM and PM_{10} emissions to below the PSD significance thresholds as well as ensure compliance with National Ambient Air Quality Standards (NAAQS).

II. Significant Applicable Air Pollution Control Regulations

The completed construction activity is subject to Kansas Administrative Regulations relating to air pollution control. The following air quality regulations were determined to be applicable to this source:

- A. K.A.R. 28-19-31(a), Particulate matter emission limitations for indirect heating equipment.
- B. K.A.R. 28-19-31(b)(2), Opacity requirements for indirect heating equipment.
- C. K.A.R. 28-19-300(a)(1), Construction permits and approvals; applicability.
- D. K.A.R. 28-19-301(e), Construction permits and approvals; application and issuance.
- E. K.A.R. 28-19-302(b), Construction permits and approvals; additional provisions; construction permits.
- F. K.A.R. 28-19-650(a)(3), Emissions opacity limits.
- G. 40 CFR Part 60 Subpart A, Standards of Performance for New Stationary Sources
- H. K.A.R. 28-19-720, adopting by reference 40 CFR Part 60, Subpart Kb, New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.
- I. 40 CFR Part 60 Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units greater than 10 MMBtu/hr but less than 100 MMBTU/hr.
- J. 40 CFR Part 60 Subpart IIII, New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines.
- K. 40 CFR Part 60 Subpart Ec, New Source Performance Standards for Hospital/Medical/Infectious Waste Incinerators (HMIWI) for Which Construction is Commenced After June 20, 1996.
- L. 40 CFR Part 63 Subpart A, National Emission Standards for Hazardous Air Pollutants for Source Categories, General Provisions.
- M. 40 CFR Part 63 Subpart ZZZZ, National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
- N. 40 CFR Part 63 Subpart JJJJJ, National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.

III. Air Emission Unit Technical Specifications

The following equipment or equivalent is approved:

- A. Seven (7) Superior Boilers, Model Mohican 800 BHP, designated as EU-Boiler01, EU-Boiler02, EU-Boiler03, EU-Boiler04, EU-Boiler05, EU-Boiler06, and EU-Boiler07. Each boiler is designed with a maximum design heat input rate of 33.475 MMBtu/hr. Primary fuel is natural gas. Emergency fuel for natural gas curtailment use and maintenance testing is ULSD fuel with a sulfur content not to exceed 15 ppm (0.0015 percent by weight). Each boiler is equipped with Low NOx Burner and flue gas recirculation (FGR) technology rated at 30 ppm NOx. **These boilers are subject to the provisions of 40 CFR Part 60 Subpart Dc and to the provisions of 40 CFR Part 63, Subpart JJJJJ.**
- B. Seven (7) Detroit Diesel, Model No. 1020FDH5582, reciprocating engines, designated as IA-EMGEN01, IA-EMGEN02, IA-EMGEN03, IA-EMGEN04, IA-EMGEN05, IA-EMGEN06, and IA-EMGEN07. Each engine is rated a maximum 2,709 bhp and powers a generator with a nameplate maximum capacity of 1,860 kW. These units will be used for emergency power generation. Primary fuel for the engines will be ULSD fuel with a sulfur content not to exceed 15 ppm (0.0015 percent by weight). **These engines are subject to the provisions of 40 CFR Part 60 Subpart IIII and 40 CFR Part 63 Subpart ZZZZ.**
- C. Five (5) underground storage tanks have a working capacity of 40,000 gallons each, designated as TK-01, TK-02, TK-03, TK-04, and TK-05. Each tank will store ULSD fuel. **These tanks are subject to the provisions of K.A.R. 28-19-720 which adopts by reference 40 CFR Part 60 Subpart Kb.**
- D. Two (2) identical NCE Crawford Emcotek controlled-air incinerators, Model No. CB212SW-L, each with maximum design combustion capacity of 400 pounds per hour of medical/infectious/pathological waste. The primary combustion chamber (212 cubic feet volume) of each incinerator has two (2) 750,000 BTU/hr natural gas burners and operates at a minimum temperature of 1600°F. The secondary combustion chambers (162 cubic feet volume per chamber) of each incinerator has one (1) 3,000,000 BTU/hr natural gas burner and operates at a minimum temperature of 1800°F and at a minimum total residence time of one (1) second. **These incinerators are subject to the provisions of 40 CFR Part 60 Subpart Ec.**
- E. Each incinerator is equipped with a wet scrubber (Rotary Atomizing™ Scrubbing System) and a carbon adsorber system (Enhanced CarbonFilter™, USA Patent 7,014,682) and both are manufactured by NCE Crawford Emcotek with Model No. 150L-1900C-C/F. The combination of a wet scrubber and a carbon adsorber provides greater than 99.0 percent control efficiency and greater than 99.0 percent capture/collection efficiency. The manufacturer guaranteed that the emission limits under 40 CFR Part 60 Subpart Ec will be met by their design when operated in accordance with the manufacturer's procedures.
- F. Other ancillary equipment of the proposed incineration system include:
 - 1. Thermal Relief Valve (TRV) Assembly: an emergency bypass stack (32 inches outside diameter; 60 feet above grade) that opens under emergency conditions (e.g., failure of the cooling system) to relieve heat and pressure in the combustion chambers of the incinerators, thus, protecting the downstream equipment such as the wet scrubber. This emergency activity is subject to the requirements of 40 CFR Part 60 Subpart Ec.

2. Sub-cooling and Condensation System: to sub-cool the incinerator flue gas from 1850°F to 100°F and to condense the soluble salts (particulate), organics (dioxins), and heavy metals before the wet scrubbing process.
3. Three-Stage Demister/Aerosol Separation System of the wet scrubber: the 1st stage is an acid absorption section; the 2nd and 3rd stages have 99 percent overall droplet removal.
4. Flue Gas Reheater (FGR): to raise the temperature of flue gases exiting the wet scrubber from 100°F to 140°F in order to condition it to 40 percent relative humidity before the carbon adsorption process.
5. Induced Draft (ID) Fan: a variable speed fan rated at a range from 1680 to 2520 actual cubic feet per minute (acfm) and 17.6 to 26.4 inches water column (WC) that pulls air through the entire incineration, wet scrubbing, and carbon filtration system; a Programmable Logic Control (PLC) system is used to manage the ID Fan performance.
6. Exhaust stack: located downstream of the ID Fan; has 12 inches inside diameter and extends 60 feet above grade; includes sampling ports.
7. Ram Feeder/Loader Assembly: a hydraulically activated device used to batch load the waste. Into the incinerator.
8. Ash Removal Assembly: an internal component of the incinerator used to push or translate ash generated in the primary combustion chamber.
9. Sodium Hydroxide (NaOH) Day Tank with three feed pumps: 500-gallon capacity with secondary containment for storage of 25 percent (by weight) NaOH solution.
10. Control Cabinet: with programmable control panel having a NEMA 4 rating.
11. Data Acquisition and Handling System (DAHS): has the capability of measuring and recording 1-minute, 1-hour, and 3-hour rolling averages and has up to eight (8) PLC signals for parameter recording.

IV. Air Emissions Estimates from the Proposed Activity

| Pollutant type | Potential-to-emit (PTE) ¹ (tons per year) | |
|---|---|-------------|
| | Pre-permit | Post-permit |
| Nitrogen Oxides (NO _x) | 208.80 | 89.69 |
| Sulfur Dioxide (SO ₂) | 520.80 | 0.40 |
| Carbon Monoxide (CO) | 83.80 | 57.19 |
| Carbon Dioxide Equivalent (CO ₂ e) | 183,117.70 | ≤99,999 |

¹ Potential-to-emit (PTE) means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

| Pollutant type | Potential-to-emit (PTE) ¹ (tons per year) | |
|--|---|-------------|
| | Pre-permit | Post-permit |
| Particulate Matter (PM) | 25.71 | 7.48 |
| Particulate Matter (PM ₁₀) | 25.71 | 7.48 |
| Volatile Organic Compounds (VOCs) | 11.78 | 10.16 |
| Total Hazardous Air Pollutants (Total HAPs) | 2.42 | 1.78 |
| Individual HAPs (<i>from the incinerators</i>) | | |
| Lead (Pb) | 7.77E-04 | 3.88E-04 |
| Cadmium (Cd) | 4.23E-04 | 4.23E-04 |
| Mercury (Hg) | 1.51E-04 | 1.51E-04 |
| Dioxin/Furans (CDD/CDF) | 2.03E-08 | 2.03E-08 |

V. Permit Conditions

The following sections describe the federally-enforceable permit conditions for the proposed activity that include air emissions limitations and standards; monitoring, recordkeeping, and reporting requirements; compliance and performance test requirements; operator training and qualification requirements; siting requirements; and waste management plan requirements.

A. Plant-wide Limit on Greenhouse Gas Emissions (CO₂e) [complying with K.A.R. 28-19-302(b)]

1. Air Emission Limitations

The following air emission limitations apply Facility-Wide:

- a. The owner or operator shall restrict the use of diesel fuel fired in the boilers to times of curtailment of natural gas by the natural gas supplier or natural gas emergencies with the exception of periodic testing to ensure the boilers are capable of burning diesel fuel should an emergency involving natural gas curtailment occur. [K.A.R. 28-19-301(e)]
- b. The owner or operator shall restrict the use of diesel fuel fired in the emergency generators to emergency operations and maintenance operations, as further described and restricted in Section V.D of this permit and 40 CFR 60.4211(e). [K.A.R. 28-19-301(e)]
- c. The owner or operator shall install a fuel meter for natural gas and a fuel meter for the diesel fuel prior to the boilers for the purpose of measuring the amount of natural gas and for measuring the amount of fuel oil combusted in the boilers each month, as also described in Section V.C. of this permit. [K.A.R. 28-19-301(e)]

- d. The owner or operator shall install a fuel meter for natural gas prior to the incinerators for the purpose of measuring the amount of natural gas combusted in the incinerators each month. [K.A.R. 28-19-301(e)]

2. Monitoring Requirements

- a. The owner or operator shall record the amount of natural gas and fuel oil combusted in the boilers, the incinerators and plant wide for all plant activities, including other combustion equipment (excluding the emergency generators). This record shall be maintained in the form of meter readings and monthly fuel bills that together will show the total amount of fuel combusted at the facility for every month. [K.A.R. 28-19-301(e)]
- b. The owner or operator shall install a non-resettable hour meter on each emergency generator to record the hours each generator was operated monthly, as also described in 40 CFR 60.4209(a).
- c. Beginning the 12 month of initial operation and calculated monthly thereafter, the owner or operator shall demonstrate that CO₂e emissions are less than 100,000 tons per year on a consecutive 12 month rolling basis by calculating the CO₂e emissions using the following equation:

$$[122,155.20 (A) + 23,589.08 (B) + 3,182.55 (C)] / 2000 \leq 99,999 \text{ tons of CO}_2\text{e}$$

Where:

A = million standard cubic feet of natural gas burned in all boilers, the incinerators and other combustion units facility-wide during each previous 12 month consecutive period. [The numerical constant 122,155.20 is the CO₂e emission factor in pounds per million cubic feet of natural gas and is based on the boiler manufacturer data for natural gas combustion. This factor is greater than the CO₂e emission factor for natural gas combustion in boilers found in the AP-42 Chapter 1, Table 1.4-2.];

B = thousands of gallons of # 2 diesel fuel burned in all boilers during each previous 12 month consecutive period [The numerical constant 23,589.08 is the CO₂e emission factor in pounds per thousand gallons of fuel oil and is based on the boiler manufacturer data for fuel oil combustion.]; and

C = number of total hours all emergency generators operated during each previous 12 month consecutive period [The numerical constant 3,182.55 is the CO₂e pounds per hour emission factor based on PSD and Title V Permitting Guidance for Greenhouses published by the US EPA in March 2011].
[K.A.R. 28-19-301(e)]

3. Recordkeeping Requirements

- a. The owner or operator shall maintain monthly records of the natural gas and fuel oil combusted in the boilers, incinerators, and plant wide for all plant activities, including other combustion equipment (excluding the emergency generators). This record shall be maintained in the form of meter readings and monthly fuel bills that together will show the total amount of fuel combusted at the facility. [K.A.R. 28-19-301(e)]
- b. The owner or operator shall follow the recordkeeping requirements described in Section V.D.3. for recording the hours of operation for the emergency generators. [40 CFR 60.4214(b)]
- c. The owner or operator shall maintain a record of the consecutive 12 month rolling calculation for CO₂e. The record shall be updated monthly no later than the last day of the month following the month to which the record relates. [K.A.R. 28-19-301(e)]
- d. All records shall be maintained onsite for a period of five (5) years from the date of record. [K.A.R. 28-19-301(e)]

4. Reporting Requirements

- a. If, at the end of any calendar quarter, the facility's actual operations exceed 85% of the operational limitations (i.e., if the facility emits more than 85,000 tons of CO₂e for the past four calendar quarters), the owner or operator shall report the actual operations to the department for that period of time. This report shall be submitted to KDHE within 45 days of the last day of the month following the conclusion of the calendar quarter. [K.A.R. 28-19-301(e)]

B. Plant-wide Permit Condition for Dispersion Modeling Analysis [complying with K.A.R. 28-19-301(e)]

1. Air Emission Limitations

- a. Stack parameters for all equipment listed under Air Emissions Unit Technical Specifications, including but not limited to stack heights, stack diameters, exhaust temperatures, emission rates, and exit velocities, shall be consistent with data provided for the dispersion modeling analysis. [K.A.R. 28-19-301(e)]

2. Reporting Requirements

- a. If significant changes are made, or modeling parameters are not representative of site conditions, the facility shall document compliance with the NAAQS and increments and submit documentation of compliance to KDHE prior to making the change(s). KDHE has final authority in determining what constitutes a significant change. If modeling indicates a potential NAAQS or increment violation, then mitigation shall be required. [K.A.R. 28-19-301(e)]

C. **Permit Conditions for the Seven (7) Boilers** (complying with K.A.R. 28-19-31(a), K.A.R. 28-19-31(b)(2), 40 CFR Part 60 Subpart A and Subpart Dc, and 40 CFR Part 63 Subpart A and JJJJJ)

1. **Air Emission Limitations**

The following air emission limitations apply to the seven (7) boilers:

- a. The owner or operator shall not operate more than six (6) of the boilers concurrently at any one time. [K.A.R. 28-19-301(e)]
- b. Particulate matter emissions from all indirect heating equipment are limited to the amount determined by the following equation:

$$A = 1.026 / I^{0.233}$$

Where: A = the allowable emission rate in lb / 10⁶ Btu
I = the total heat input of all boilers in 10⁶ Btu
[K.A.R. 28-19-31(a)]

- c. K.A.R. 28-19-31(b)(2) limits the opacity of visible air emissions from the boilers to 20 percent. Compliance with 40 CFR 60.43c(c) shall demonstrate compliance with K.A.R. 28-19-31(b)(2).
- d. On and after the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whichever date comes first, no owner or operator shall combust oil that contains greater than 0.5 weight percent sulfur. [40 CFR 60.42c(d)]
- e. The owner or operator shall limit the sulfur content of the fuel oil fired in the boilers to less than or equal to 0.0015 weight percent sulfur. [K.A.R. 28-19-301(e)]
- f. Compliance with the New Source Performance Standards (NSPS) Subpart Dc PM emission, SO₂ emission and fuel oil sulfur limits shall be based on a certification from the fuel supplier, as described under 40 CFR 60.48c(f). [40 CFR 60.42c(h)(1)]
- g. On and after the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whichever date comes first, no owner or operator that combusts oil and has a heat input capacity of 30 MMBtu/hr or greater shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43c(c)]
- h. Pursuant to 40 CFR Part 63, Subpart JJJJJ, these boilers are exempt from the requirements of this subpart as described under 40 CFR Part 63.11195, as long as the boiler operations at the facility meet the definition of gas-fired boiler, as defined in 40 CFR Part 63.11237. A Gas-fired Boiler includes any boiler that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only

during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. Each boiler shall be limited to 48 hours of periodic testing on liquid fuel (diesel fuel) during any calendar year. [40 CFR Part 63.11237]

2. Monitoring Requirements

The following air emission monitoring requirements apply to the seven (7) boilers:

- a. The owner or operator shall develop a written or electronic means to document and record the operating hours and date of operation for each boiler to demonstrate that only six (6) boilers are operating concurrently at any one time. [K.A.R. 28-19-301(e)]
- b. The owner or operator shall demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under 40 CFR 60.48c(f). [40 CFR 60.46c(e)]
- c. In lieu of installing Continuous Opacity Monitors (COMs), the owners and operators shall operate the boilers in accordance with a written site-specific monitoring plan approved by the KDHE. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. [40 CFR 60.47c(g)]
- d. The owner or operator shall record the number of hours each boiler operates on diesel fuel for periodic testing. [K.A.R. 28-19-301(e)]

3. Recordkeeping Requirements

The following air emission recordkeeping requirements apply to the seven (7) boilers:

- a. The owner or operator shall maintain a record of the operating hours and date of operation for each boiler to demonstrate that only six (6) boilers are operating concurrently at any one time. [K.A.R. 28-19-301(e)]
- b. In accordance with 40 CFR 60.7(b), the owner/operator shall keep records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of each boiler.
- c. The owner or operator shall record and maintain records of the amount of fuel combusted in the boilers on a monthly basis. The records of the amount of fuel combusted can be maintained in the form of monthly fuel bills or meter readings, or other records that adequately document fuel usage. [40 CFR 60.48c(g)]
- d. For distillate oil the fuel supplier certification shall include the following information:
 - i. The name of the oil supplier;
 - ii. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c; and

- iii. The sulfur content or maximum sulfur content of the oil. [40 CFR 60.48c(f)]
- e. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. [40 CFR 60.48c(e)(11)]
- f. The owner or operator shall maintain a record of the number of hours each boiler operates on diesel fuel for periodic testing. [K.A.R. 28-19-301(e)]
- g. In accordance with 40 CFR 60.48c(i) and this permit, all of the required records shall be maintained by the owner or operator of the boilers for a period of two years following the date of record.

4. Reporting Requirements

The following air emission reporting requirements apply to the seven (7) boilers:

- a. On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8, whichever date comes first, the owner or operator shall submit the site-specific monitoring plan for operations of the boilers in accordance with 40 CFR 60.47c(g)
- b. The reporting period for the reports required is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [K.A.R. 28-19-301(e)]

5. Performance Test Requirements

The following air emission performance testing requirements apply to the seven (7) boilers:

- a. Where the owner or operator seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in 40 CFR 60.48c(f), as applicable.[40 CFR 60.44c(h)]
- b. If supplier certification is not used, the initial performance test may consist of sampling and analyzing the oil in the initial tank of the oil to be fired in the boilers in accordance with 40 CFR 60.44c(g). Thereafter, the oil in the fuel tank shall be sampled after each new shipment of oil is received, following the procedures set out in 40 CFR 60.46c(d)(2).
- c. The owner or operator shall conduct an initial performance test as required under 40 CFR 60.8, and shall conduct subsequent performance tests as requested by the Administrator. Method 9 of appendix A-4 of 40 CFR Part 60 shall be used for determining the opacity of stack emissions.

D. Permit Conditions for the Emergency Generator Diesel Engines (complying with K.A.R 28-19-650(a)(3), 40 CFR Part 60 Subpart A and Subpart IIII and 40 CFR Part 63 Subpart A and Subpart ZZZZ)

1. Air Emission Limitations

The following air emission limitations apply to the seven (7) Emergency Generators:

- a. The emergency generators will demonstrate compliance with 40 CFR Part 63 Subpart ZZZZ by complying with the provisions of 40 CFR Part 60 Subpart IIII.
- b. Beginning October 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, which is 15 ppm maximum for nonroad diesel fuel. [40 CFR 60.4207 and 40 CFR 80.510(b)(1)]
- c. Owners and operators of emergency stationary CI ICE shall operate and maintain the engine according to manufacturer's written instructions. [40 CFR 60.4211(a)]
- d. Maintenance checks and readiness testing of emergency CI ICE is limited to 100 hours per generator per year. There is no time limit on the use of such units in emergency situations. If Federal, State, or local standards require more than 100 hours of maintenance and testing, the owner or operator shall maintain records of these requirements. [40 CFR 60.4211(e)]
- e. Maintenance checks and readiness testing of the emergency CI ICE are to be conducted between the hours of 6:00 AM to 6:00 PM only. [K.A.R. 28-19-301(e)]
- f. Emergency engines meeting standards under 40 CFR 60.4205 but not 40 CFR 60.4204 shall only be operated during required maintenance and testing and emergencies. [40 CFR 60.4211(e)]
- g. Opacity of visible emissions from the generators shall be limited to 20 percent. [K.A.R 28-19-650(a)(3)]

2. Monitoring Requirements

The following air emission monitoring requirements apply to the seven (7) Emergency Generators:

- a. Owners or operators of emergency stationary CI ICE must install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]
- b. The owner or operator shall record the time of day and the date that the maintenance checks and readiness testing of the emergency CI ICE were conducted. [K.A.R. 28-19-301(e)]

3. Recordkeeping/Reporting Requirements

The following air emission recordkeeping requirements apply to the seven (7) Emergency Generators:

- a. Must submit an initial notification as specified in 40 CFR 63.6645(f).
- b. Owners and operators of emergency stationary CI ICE shall maintain records of the operation of each engine during emergency and non-emergency services that are recorded through the non-resettable hour meter.
- c. The owner must record the amount of time each engine was operated and the reason each engine was in operation during that time. [40 CFR 60.4214(b)]
- d. The owner or operator shall maintain a record of the time of day and the date that the maintenance checks and readiness testing of the emergency CI ICE were conducted. [K.A.R. 28-19-301(e)]
- e. All of the required records shall be maintained by the owner or operator for a period of two years following the date of record. [K.A.R. 28-19-301(e)]

E. Permit Conditions for the Underground Storage Vessels (complying with K.A.R 28-19-650(a)(3), 40 CFR Part 60 Subpart A and Subpart Kb)

1. Air Emission Limitations

The following air emission limitations apply to the five (5) 40, 000 gallon underground storage vessels:

- a. 40 CFR Part 60 Subpart Kb applies to each storage vessel with a capacity greater than or equal to 19,800 gallons that is used to store volatile organic liquids for which construction, reconstruction, or modification is commenced after July 23, 1984. This subpart does not apply to storage vessels with a capacity greater than or equal to 39,900 gallons storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 19,800 gallons but less than 39,900 gallons storing a liquid with a maximum true vapor pressure less than 15.0 kPa. Each 40,000 gallon storage tank will be storing ULSD which has a true vapor pressure of less than 3.5 kPa and thus the requirements of 40 CFR Part 60, Subpart Kb would not apply to the distillate fuel oil storage tanks. [40 CFR 60.110b(b)]
- b. Opacity of visible emissions from the tanks shall be limited to 20 percent. [K.A.R. 28-19-650(a)(3)]

2. Monitoring Requirements

The following air emission monitoring requirements apply to the five (5) 40, 000 gallon underground storage vessels:

- a. No monitoring is required at the time of permit issuance.

3. Recordkeeping and Reporting Requirements

The following air emission recordkeeping requirements apply to the five (5) 40,000 gallon underground storage vessels:

- a. No recordkeeping or reporting is required at the time of permit issuance.

F. Permit Conditions for the Incinerators (complying with 40 CFR Part 60 Subpart A and Subpart Ec)

1. Air Emission Limitations

The following air emission limitations apply to the two (2) incinerators:

- a. The owner or operator shall not operate more than one (1) incinerator concurrently at any time. [K.A.R. 28-19-301(e)]
- b. The owner or operator of an affected facility shall not cause to be discharged into the atmosphere any gases that contain stack emissions in excess of the applicable emissions limits listed in Table 1B of 40 CFR Part 60, Subpart Ec. [40 CFR 60.52c(a)(2)]
- c. The following are the emissions limits for medium-size HMIWI units as listed in Table 1B to Subpart Ec:

| Pollutant | Emissions Limits (adjusted to 7 percent oxygen, dry basis) |
|------------------------------------|--|
| Particulate Matter (PM) | 22 milligrams per dry standard cubic meter (mg/dscf) (0.0095 grains per dry standard cubic feet (gr/dscf)) |
| Carbon Monoxide (CO) | 1.8 parts per million by volume (ppmv) |
| Dioxin/Furans (CDD/CDF) | 0.47 nanogram per dry standard cubic meter (ng/dscm) total dioxins/furans (0.21 grains per billion dry standard cubic feet (gr/10 ⁹ dscf) or 0.014 ng/dscm TEQ (0.0061 gr/10 ⁹ dscf) |
| Hydrogen Chloride (HCl) | 7.7 ppmv |
| Sulfur Dioxide (SO ₂) | 1.4 ppmv |
| Nitrogen Oxides (NO _x) | 67 ppmv |
| Lead (Pb) | 0.018 mg/dscm (0.0079 gr/dscf) |
| Cadmium (Cd) | 0.0098 mg/dscm (0.0043 gr/dscf) |
| Mercury (Hg) | 0.35 dscm (0.0015 gr/dscf) |

- d. The owner or operator of an affected facility shall not cause to be discharged into the atmosphere any gases that exhibit greater than six (6) percent opacity (6-minute block average). [40 CFR 60.52c(b)(2)]
- e. The owner or operator of an affected facility shall not cause to be discharged into the atmosphere visible emissions of combustion ash from ash conveying system (including conveyor transfer points) in excess of five (5) percent of the observation period as determined by EPA Reference Method 22 of Appendix A of 40 CFR Part 60. Exceptions to this visible emissions limits are listed in 40 CFR 60.52c(d) and 40 CFR 60.52c(e). [40 CFR 60.52c(c)]

- f. The minimum temperature shall be 1600 °F in the primary combustion chamber of the incinerators. [K.A.R. 28-19-301(e)]
- g. The minimum temperature shall be 1800°F in the secondary combustion chambers of the incinerators. [K.A.R. 28-19-301(e)]

2. **Operator Training and Qualification Requirements**

The following training and qualifications requirements apply to the operator of the incinerators:

- a. No owner or operator of an affected facility shall allow the affected facility to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within one (1) hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators. [40 CFR 60.53c(a)]
- b. The operator training and qualification shall be obtained through a State-approved program or by completing the requirements that are listed in 40 CFR 60.53c(c) through 40 CFR 60.53c(g): [40 CFR 60.53c(b)]
 - i. 40 CFR 60.53c(c): Describes the HMIWI operator training course minimum requirements
 - ii. 40 CFR 60.53c(d): Describes the qualifications of a trained HMIWI operator
 - iii. 40 CFR 60.53c(e): Describes the validity date of qualifications of an HMIWI operator
 - iv. 40 CFR 60.53c(f): Describes how to maintain the qualifications of an HMIWI operator
 - v. 40 CFR 60.53c(g): Describes the renewal of lapsed qualification of an HMIWI operator
- c. The owner or operator of an affected facility shall maintain documentation at the facility that address the following in accordance with 40 CFR 60.53c(h):
 - i. 40 CFR 60.53c(h)(1): Summary of the applicable standards under 40 CFR Part 60 Subpart Ec;
 - ii. 40 CFR 60.53c(h)(2): Description of basic combustion theory applicable to an HMIWI;
 - iii. 40 CFR 60.53c(h)(3): Procedures for receiving, handling, and charging waste;
 - iv. 40 CFR 60.53c(h)(4): HMIWI startup, shutdown, and malfunction procedures;
 - v. 40 CFR 60.53c(h)(5): Procedures for maintaining proper combustion air supply levels;

- vi. 40 CFR 60.53c(h)(6): Procedures for operating the HMIWI and associated air pollution control systems within the standards established under 40 CFR Part 60 Subpart Ec;
 - vii. 40 CFR 60.53c(h)(7): Procedures for responding to periodic malfunction, or conditions that may lead to malfunction;
 - viii. 40 CFR 60.53c(h)(8): Procedures for monitoring HMIWI emissions;
 - ix. 40 CFR 60.53c(h)(9): Reporting and recordkeeping procedures; and
 - x. 40 CFR 60.53c(h)(10): Procedures for handling ash.
- d. The owner or operator of an affected facility shall establish a program for reviewing the information listed in 40 CFR 60.53c(h). The initial review of the information listed in 40 CFR 60.53c(h) shall be conducted prior to assumption of responsibilities affecting HMIWI operation. The subsequent reviews shall be conducted annually. [40 CFR 60.53c(i)]
 - e. The information listed in 40 CFR 60.53c(h) along with records of training shall be kept in a readily accessible location for all HMIWI operators and for inspection by the EPA or its delegated enforcement agent. [40 CFR 60.53c(j)]

3. Siting Requirements

The owner or operator of an affected facility shall prepare an analysis of impacts of the affected facility. The requirements for the preparation of an analysis of impacts are listed in 40 CFR 60.54c(a) through 40 CFR 60.54c(c).

4. Waste Management Plan

The owner or operator of an affected facility shall prepare a waste management plan. The requirements for the preparation of a waste management plan are listed in 40 CFR 60.55c.

5. Compliance and Performance Testing

The following compliance and performance testing requirements apply to the incinerators:

- a. The emissions limits apply at all times. [40 CFR 60.56c(a)]
- b. The owner or operator of an affected facility shall conduct an initial performance test as required under 40 CFR 60.8 to determine compliance with emission limits using the procedures and test methods listed in 40 CFR 60.56c(b)(1) through 40 CFR 60.56c(b)(14): [40 CFR 60.56c(b)]
 - i. 40 CFR 60.56c(b)(1): All performance tests shall consist of a minimum of three (3) tests runs conducted under representative operating conditions.

- ii. 40 CFR 60.56c(b)(2): The minimum sample time shall be one (1) hour per test run unless otherwise indicated.
 - iii. 40 CFR 60.56c(b)(3): Method for sampling location/points
 - iv. 40 CFR 60.56c(b)(4): Methods for gas composition analysis
 - v. 40 CFR 60.56c(b)(5): Equation for pollutant concentration adjusted to seven (7) percent oxygen
 - vi. 40 CFR 60.56c(b)(6): Methods for PM emissions measurements
 - vii. 40 CFR 60.56c(b)(7): Methods for NO_x emissions measurements
 - viii. 40 CFR 60.56c(b)(8): Methods for SO₂ emissions measurements
 - ix. 40 CFR 60.56c(b)(9): Methods for stack opacity measurements
 - x. 40 CFR 60.56c(b)(10): Methods for CO emissions measurements
 - xi. 40 CFR 60.56c(b)(11): Methods for total dioxin/furan emissions measurements
 - xii. 40 CFR 60.56c(b)(12): Methods for HCl emissions measurements
 - xiii. 40 CFR 60.56c(b)(13): Methods for Pb, Cd, and Hg emissions measurements
 - xiv. 40 CFR 60.56c(b)(14): Method for fugitive ash emissions measurements
- c. The owner or operator of an affected facility shall conduct annual performance tests as required under 40 CFR 60.56(c)(1) through 40 CFR 60.56(c)(7): [40 CFR 60.56c(c)]
- i. 40 CFR 60.56c(c)(1): Annual performance test for opacity
 - ii. 40 CFR 60.56c(c)(2): Annual performance test for PM, CO, and HCl
 - iii. 40 CFR 60.56c(c)(3): Annual performance test for fugitive emissions from fly ash/bottom ash storage and handling
 - iv. 40 CFR 60.56c(c)(4): Use of Continuous Emission Monitoring System (CEMS) as substitute for annual performance test for CO
 - v. 40 CFR 60.56c(c)(5): Use of CEMS as substitute for annual performance test for HCl and PM
 - vi. 40 CFR 60.56c(c)(6): Use of a continuous automated sampling system for dioxin/furan

- vii. 40CFR 60.56c(c)(7): Use of a continuous automated sampling system for Hg
- d. Conditions/requirements when an affected facility is equipped with air pollution control system:
 - i. The owner or operator of an affected facility equipped with air pollution control system shall establish the appropriate maximum and minimum operating parameters listed in Table 3 of 40 CFR Part 60 Subpart Ec during the initial performance test to determine compliance with the emission limits. [40 CFR 60.56c(d)(1)]
 - ii. Following the date on which the initial performance test is completed or is required to be completed under 40 CFR Part 60.8, whichever date comes first, the owner or operator shall ensure that the affected facility does not operate above any of the applicable maximum operating parameters or below any of the minimum operating parameters listed in Table 3 of 40 CFR Part 60 Subpart Ec: [40 CFR 60.56c(d)(2)]
 - (a) Operating parameters shall be measured as 3-hour rolling averages (calculated each hour as the average of the previous three (3) operating hours) at all times except during periods of startup, shutdown, and malfunction.
 - (b) Operating parameter limits do not apply during performance tests.
 - (c) Operation above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established parameter(s).
 - iii. The 40 CFR 60.56c(e)(1) through 40 CFR 60.56c(e)(10) describe what constitute a violation of each emission limit when the affected source is equipped with a dry scrubber followed by a fabric filter, except when a repeat performance test is to be conducted as described in 40 CFR 60.56c(i).
 - iv. The 40 CFR 60.56c(f)(1) through 40 CFR 60.56c(f)(10) describe what constitutes a violation of each emission limit when the affected source is equipped with a wet scrubber, except when a repeat performance test is to be conducted as described in 40 CFR 60.56c(i).
 - (a) 40 CFR 60.56c(f)(1): Operation of the affected facility above the maximum charge rate and below the minimum pressure drop across the wet scrubber or below the minimum horsepower or amperage to the system simultaneously shall constitute a violation of the PM emission limit.
 - (b) 40 CFR 60.56c(f)(2): Operation of the affected facility above the maximum charge rate and below the minimum secondary chamber temperature simultaneously shall constitute a violation of the CO emission limit.

- (c) 40 CFR 60.56c(f)(3): Operation of the affected facility above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum scrubber liquor flow rate simultaneously shall constitute a violation of the dioxin/furan emission limit.
 - (d) 40 CFR 60.56c(f)(4): Operation of the affected facility above the maximum charge rate and below the minimum scrubber liquor pH simultaneously shall constitute a violation of the HCl emission limit.
 - (e) 40 CFR 60.56c(f)(5): Operation of the affected facility above the maximum flue gas temperature and above the maximum charge rate simultaneously shall constitute a violation of the Hg emission limit.
 - (f) 40 CFR 60.56c(f)(6): Use of the bypass stack shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emissions limits.
 - (g) 40 CFR 60.56c(f)(7): Operation of the affected facility above the CO emissions limits as measured by the CO CEMS specified in 40 CFR 60.56c(c)(4) shall constitute a violation of the CO emission limit.
 - (h) 40 CFR 60.56c(f)(8): Operation of the affected facility above the PM, HCl, Pb, Cd, and/or Hg emissions limits as measured by the CEMS specified in (i) 40 CFR 60.56c(c)(5) shall constitute a violation of the applicable emissions limit.
 - (j) 40 CFR 60.56c(f)(9): Operation of the affected facility above the dioxin/furan emissions limits as measured by the continuous automated sampling system specified in 40 CFR 60.56c(c)(6) shall constitute a violation of the dioxin/furan emissions limit.
 - (k) 40 CFR 60.56c(f)(10): Operation of the affected facility above the Hg emissions limits as measured by the continuous automated sampling system specified in 40 CFR 60.56c(c)(7) shall constitute a violation of the Hg emissions limit.
- v. The 40 CFR 60.56c(g)(1) through 40 CFR 60.56c(g)(10) describe what constitutes a violation of each emission limit when the affected source is equipped with a dry scrubber followed by a fabric filter and a wet scrubber, except when a repeat performance test is to be conducted as described in 40 CFR 60.56c(i).
- vi. The 40 CFR 60.56c(h)(1) through 40 CFR 60.56c(h)(3) describe the establishment of the required site specific operating parameters to determine compliance and what constitutes a violation of the NO_x emission limit when the affected source is equipped with selective non catalytic reduction technology.

- vii. The 40 CFR 60.56c(j) describes the establishment of the required site specific operating parameters when the affected facility is using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, a dry scrubber followed by a fabric filter and a wet scrubber, or selective noncatalytic reduction technology. The owner or operator of the affected facility shall not conduct the initial performance test until after the petition has been approved by the Administrator.
- e. Conditions/requirements for a repeat performance test:
 - i. The 40 CFR 60.56c(i) describes how an affected facility may conduct a repeat performance test within 30 days of violation of applicable operating parameters(s).
 - ii. The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The Administrator may request a repeat performance test at any time. [40 CFR 60.56c(k)]

6. Monitoring Requirements

- a. The owner or operator shall develop a written or electronic means to document and record the operating hours and date of operation for each incinerator to demonstrate that only one (1) incinerator is operating concurrently at any one time. [K.A.R. 28-19-301(e)]
- b. The owner or operator of an affected facility shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 3 of 40 CFR Part 60 Subpart Ec (unless CEMS are used as a substitute for certain parameters as specified) such that these devices (or methods) measure and record values for these operating parameters at the frequencies indicated in Table 3 at all times. [40 CFR 60.57c(a)]
- c. The owner or operator of an affected facility that uses selective non catalytic reduction technology shall apply the monitoring requirements specified in 40 CFR 60.57c(b).
- d. The owner or operator of an affected facility that uses bypass stack shall apply the monitoring requirements specified in 40 CFR 60.57c(c).
- e. The owner or operator of an affected facility using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, a dry scrubber followed by a fabric filter and a wet scrubber, or selective noncatalytic reduction technology to comply with the emission limits shall install, calibrate (to manufacturers' specifications), maintain, and operate the equipment necessary to monitor the site-specific operating parameters. [40 CFR 60.57c(d)]

- f. The owner or operator of the affected facility shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting hospital waste and/or medical/infectious waste. [40 CFR 60.57c(e)]
- g. The owner or operator of the affected facility shall ensure that each HMIWI subject to the emissions limits undergoes an initial air pollution control device inspection that is at least as protective as the following: [40 CFR 60.57c(f)]
 - i. At a minimum, an inspection shall include the following:
 - (a) Inspect air pollution control device(s) for proper operation, if applicable;
 - (b) Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and
 - (c) Generally observe that the equipment is maintained in good operating condition.
 - ii. Within ten (10) days following an air pollution control device inspection, all necessary repairs shall be completed unless the owner or operator obtains written approval from the Administrator establishing a date whereby all necessary repairs of the designated facility shall be completed.
- h. The owner or operator of an affected facility shall ensure that each HMIWI subject to the emissions limits undergoes an air pollution control device inspection annually (no more than 12 months following the previous annual air pollution control device inspection). [40 CFR 60.57c(g)]
- i. The owner or operator of an affected facility that uses an air pollution control device that includes a fabric filter (and is not demonstrating compliance using PM CEMS) that uses a bag leak detection system to determine compliance with PM limits shall meet the requirements in 40 CFR 60.57c(h)(1) through 40 CFR 60.57c(h)(12).
- j. The owner or operator shall monitor the required minimum temperatures in the primary and secondary combustion chambers continuously when the incinerators are in operation. [K.A.R. 28-19-301(e)]

7. Reporting and Recordkeeping Requirements

- a. The owner or operator shall maintain a record of the operating hours and date of operation for each incinerator to demonstrate that only one (1) incinerator is operating concurrently at any one time. These records shall be maintained by the owner or operator for a period of two years following the date of record.

- b. The owner or operator of an affected facility shall submit notifications as provided by 40 CFR 60.7. In addition, the owner or operator of an affected facility shall submit the information described below: [40 CFR 60.58c(a)]
 - i. 40 CFR 60.58c(a)(1): List of information required to be submitted prior to commencement of construction.
 - ii. 40 CFR 60.58c(a)(2): List of information required to be submitted prior to initial startup.
- c. The owner or operator of an affected facility shall maintain the information listed in 40 CFR 60.58c(b)(1) through 40 CFR 60.58c(b)(11), as applicable, for a period of at least five (5) years. [40 CFR 60.58c(b)]
- d. The owner or operator of an affected facility shall submit the information specified in 40 CFR 60.58c(c)(1) through 40 CFR 60.58c(c)(4), as applicable, no later than 60 days following the initial performance test. All reports shall be signed by the facilities manager. [40 CFR 60.58c(c)]
- e. An annual report shall be submitted one (1) year following the submissions of the information required in 40 CFR 60.58c(c) and subsequent reports shall be submitted no more than 12 months following the previous reports. The annual report shall include the information specified in 40 CFR 60.58c(d)(1) through 40 CFR 60.58c (d)(11). All reports shall be signed by the facilities manager. [40 CFR 60.58c(d)]
- f. Once the affected facility is subject to permitting requirements under Title V of the Clean Air Act (Operating permit), the owner or operator of the affected facility shall submit reports required in 40 CFR 60.58c(d) semiannually. [40 CFR 60.58c(d)]
- g. The owner or operator of an affected facility shall submit semiannual reports containing any information listed under 40 CFR 60.58c(b)(3) through 40 CFR 60.58c(b)(5) no later than 60 days following the reporting period. The first semiannual reporting period ends six (6) months following the submission of information on 40 CFR 60.58c(c). Subsequent reports shall be submitted no later than six (6) months following the previous report. All reports shall be signed by the facilities manager. [40 CFR 60.58c(e)]
- h. All records specified under 40 CFR 60.58c(b) shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator. [40 CFR 60.58c(f)]
- i. If the owner or operator of an affected facility chooses to submit an electronic copy of stack test report to EPA's WebFIRE database, the test data shall be entered into EPA's database using the Electronic Reporting Tool located at http://www.epa.gov/ttn/chief/ert/ert_tool.html. [40 CFR 60.58c(g)]

- j. The owner or operator shall maintain records of the minimum and operating temperatures of the primary and secondary combustion chambers of the incinerators onsite in either paper copy or computer-readable format for a period of at least five (5) years from the date the records are acquired. [K.A.R. 28-19-301(e)]

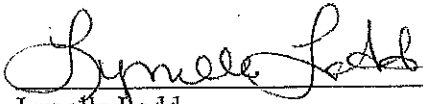
VI. Notification

Notify Mr. Stan Marshall of the North Central District Office (785) 827-9639 within 30 days when installation is complete so that an evaluation may be conducted to verify compliance with applicable regulations.

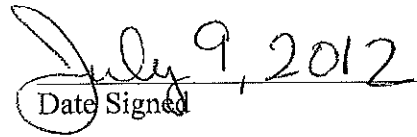
VII. General Provisions

- A. This document shall become void if the construction or modification has not commenced within 18 months of the effective date, or if the construction or modification is interrupted for a period of 18 months or longer. [K.A.R. 28-19-301(c)]
- B. A construction permit or approval must be issued by KDHE prior to commencing any construction or modification of equipment or processes which results in an increase of potential-to-emit equal to or greater than the thresholds specified by K.A.R. 28-19-300.
- C. Upon presentation of credentials and other documents as may be required by law, representatives of KDHE (including authorized contractors of KDHE) shall be allowed to:
 - 1. enter upon the premises where a regulated facility or activity is located or conducted or where records must be kept under conditions of this document;
 - 2. have access to and copy, at reasonable times, any records that must be kept under conditions of this document;
 - 3. inspect at reasonable times, any facilities, equipment (including monitoring and control equipment) practices or operations regulated or required under this document; and
 - 4. sample or monitor, at reasonable times, for the purposes of assuring compliance with this document or as otherwise authorized by the Secretary of KDHE, any substances or parameters at any location. [K.A.R. 28-19-301(e)]
- D. The emission unit or stationary source which is the subject of this document shall be operated in compliance with all applicable requirements of the Kansas Air Quality Act and the federal Clean Air Act. [K.A.R. 28-19-301(e)]
- E. This document is subject to periodic review and amendment as deemed necessary to fulfill the intent and purpose of the Kansas Air Quality Statutes and Regulations and rules promulgated in accordance therewith. [K.A.R. 28-19-301(e)]
- F. This document does not relieve the facility of the obligation to obtain other approvals, permits, licenses or documents of sanction which may be required by other federal, state or local government agencies. [K.A.R. 28-19-301(e)]

Permit Writer



Lynelle Ladd
Environmental Scientist
Air Permitting Section



Date Signed

LML:saw
c: NCDO
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